

Guest Editorial



Lieutenant-General Bill Leach, CMM, CD
Chief of the Land Staff

Welcome to the first issue of a very important publication for the Canadian army. The Army Doctrine and Training Bulletin is the army professional publication for the dissemination and discussion of doctrinal and training matters, leadership, technological, conceptual, ethical and historical issues as they relate to the army. Considered, reasoned debate is necessary for the intellectual health of the army and for the development of viable doctrine and training policies. This forum will allow this debate to occur. I encourage all ranks to engage in this process and contribute to the Bulletin.

Contrary to what you may believe, the exchange of ideas in a professional forum has a long history in our army. From the early papers produced in 1855 to the many journals, bulletins, reviews, gazettes and quarterlies since then, there has been a professional need to express opinions and debate issues. Sometimes this was lively. During the 1930's, the original Canadian Defence Quarterly was home to several great debates. The then Captain to Lieutenant-Colonel E.L.M. Burns wrote numerous articles on mechanization, challenging the views held by our army; he also had a heated exchange with the then Captain to Major G.G. Simonds on the organization of divisions. These professional debates helped prepare these two future corps commanders and the leadership of the army for the challenges they faced during the Second World War.

What made these publications work was their dedication to professionalism and the openness of debate. This is the environment we must establish for The Army Doctrine and Training Bulletin. The quality demanded in articles is high, as is the need for open, frank debate. Anything published in the Bulletin is done so on the merit of the ideas presented. Recrimination will not occur. No one will be punished for what they write. Rather we will support an environment that critically examines issues and responds professionally. It is worth repeating here some words from my very first paragraph – "considered, reasoned, professional" – these are the measures of what you should submit and what will be published for others to read.

Use this journal to expand your knowledge. Challenge yourself to critically analyze what is in these pages and submit your ideas for the benefit of others. The army will gain from your efforts. Good armies are built not only on hard work and dedication, but on ideas as well. You have these abilities in you.

[\[Français\]](#)



About The Army Doctrine and Training Bulletin

Captain John Grodzinski, CD
Managing Editor

The easy part of producing a professional journal is deciding on the format and layout that it will follow: a few articles, some commentary, and a list of books, articles, and Internet sites of interest. The hard part, and the one that is the only measure of success, is ensuring that the content intellectually challenges the reader. Indeed, the success of this publication will only be from the input that you, its readers, offer it. The Bulletin sub-title says it all: this is *Canada's Professional Journal on Army Issues*.

You will note that most of the articles in this issue were prepared by senior officers. Several volunteered papers while others were asked to do so to launch the first issue. This Bulletin is for everyone in the army and personnel from all rank levels should participate. The next issue will be published in November (submissions should be in by 1 September); there is still plenty of time to prepare and submit an article or commentary. This Bulletin is committed to providing a forum for considered and reasoned debate on a myriad of topics. This can only happen if you participate.

Bulletin Format

The Bulletin is structured as follows: each issue will include a guest editorial written by senior commissioned or non-commissioned members discussing a subject chosen by that person. There will then be four or five articles dealing with a diversity of topics. Single theme editions will not be produced.

The vehicle for debate is "The Stand-Up Table", after that article of mess furniture that so many of us lean against to share our opinions with others. Here, it is hoped readers will contribute opinions on articles, concerns about trends, or commentary on other matters of interest. Rebuttal will be provided by the author being challenged, the person responsible for that issue, or other readers. The Letters to the Editor section will feature brief comments from readers.

Far too many interesting journals and books are being published to justify scant coverage by reviews. This is why a listing of articles and books is included rather than a few reviews. It is up to the reader to determine the value of the works shown. Finally, the Internet is increasingly providing original research and data on a host of subjects. Each issue will provide a list and commentary on sites readers might wish to explore.

I implore all of you to critically read and comment on the content and format of The Army Doctrine and Training Bulletin.

Editorial Policy

The Editorial Policy of The Army Doctrine and Training Bulletin has been developed to ensure that only high quality articles are published while guaranteeing that the author's message is not changed. The editors will not revise papers.

When a paper or submission is received, it is first reviewed by the Managing Editor. Is the topic interesting? Are the arguments sound and supported by good research?

If the paper is suitable? It is then sent to the Army Publishing Office (which is a section of the Directorate of Army Doctrine) for professional editing. Their focus is on structure, syntax, format (such as footnotes), terminology and spelling. Following editing, submissions are then translated, reedited to ensure correct translation and formatted for publication.

In some cases, a paper may be more suitable for another publication, such as the upcoming *Canadian Forces Journal*, or one of the corps or branch journals. In these situations, the author will be notified and the paper forwarded to the editor of the appropriate journal for consideration.

If structural flaws are identified or further work is required before a paper is suitable for publication, the author will be advised of the editorial board's reasons. The author is also encouraged to resubmit the paper once he or she has revised it.

The editorial process is consistent with many other professional publications. It works for the readers and assists authors. Do not be intimidated by it. The editorial process will ensure that the best submissions are published in the Bulletin.

The following personnel comprise the Editorial Board:

Brigadier-General Jan Arp, Senior Editor

Colonel Bill Brough, Training Editor

Lieutenant-Colonel Jacques Hamel, Doctrine Editor

Lieutenant-Colonel Wayne Pickering, Concepts Editor

Captain John Grodzinski,
Managing Editor

CWO Doug Seed, Consulting Editor

The Distribution of the Bulletin

The distribution list for the Bulletin was developed through consultation with other publications, consideration on who should receive it and guesswork. If you find your organization is receiving too many or two few copies, please advise the Managing Editor. Furthermore, if you know of another unit, defence agency or individual that should receive the Bulletin, please let us know.

In this Issue

This issue offers six articles on varied subjects.

Lieutenant-Colonel "Chuck" Oliviero, the Chief of Staff of The Canadian Land Force Command and Staff College offers his views on the recent developments in Canadian doctrine and asks whether our recently adopted new doctrine is applicable to Canada's army.

In years past, the lexicon of any army officer included a host of foreign language terms that were never translated but their sense was clearly understood. Today, the tendency is to substitute this

terminology with bland techno-translations (save the irreducible *auftragstaktik*) which often fail to convey the true sense of the term. In his article, Lieutenant-Colonel Richard Giguere of the Directorate of Land Strategic Concepts discusses one such term, the "*coup d'oeil*". Unfortunately some choose to replace this term with "battlefield visualization". If you are not familiar with this term, read the article. Then read it again.

The expertise and effectiveness attained by the Canadian Army in the Second World War is examined by Lieutenant-Colonel Mike Cessford of the Directorate of Land Strategic Concepts, in an article on the last major campaign fought by the 5th Canadian Armoured Division in Italy in early 1945. Lieutenant-Colonel Cessford recently completed a doctorate of history dealing with the Canadian Army in Italy.

Is the continental staff system dead? Lieutenant-Colonel Jacques Hamel, the Acting Director of Army Doctrine examines this question in light of doctrinal and technological changes and proposes a new staff organization for operations.

A tongue in cheek examination of the impact of technology on warfare comes from the pages of "The Canadian Army Journal". Seen through a dialogue between an aged Colonel-in-Chief and an infantry battalion commanding officer, this article continues to challenge our notions on warfare, particularly given the rise of information operations and the revolution in military affairs.

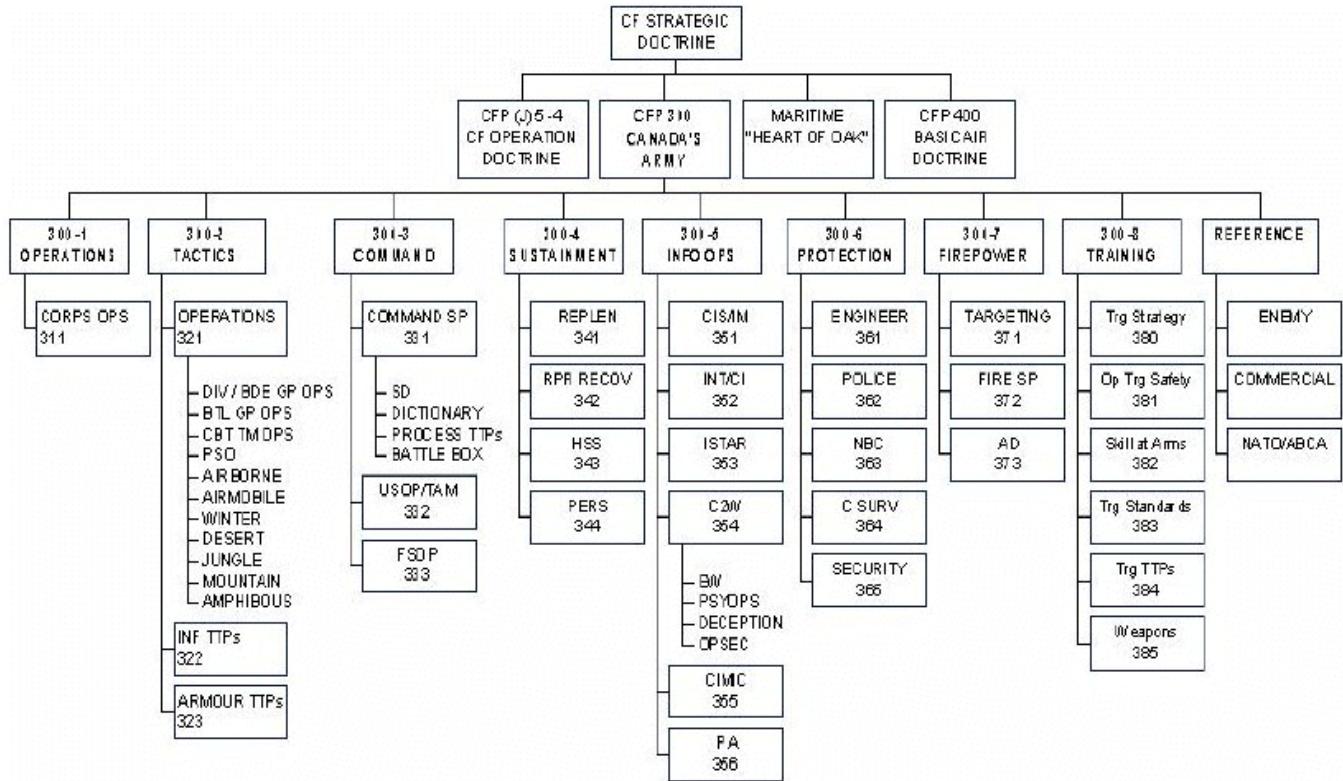
Mission command and manoeuvre in relation to the battle group in the advance are discussed in an article by Colonel Mike Semaniw, who proposes several modifications to the way in which battle groups are organized and deployed.

[\[Français\]](#)



From the Directorate of Army Doctrine: An Update on Doctrine Publications and Trends

The Army Doctrine Hierarchy



The doctrine hierarchy provides a rational basis for doctrinal development from the national strategic level, through the Land Force capstone manual (Canada's Army). From this are eight keystone manuals based on the combat functions and army training, followed by the specific operational manuals and Tactics, Techniques and Procedures Manuals (TTPs) subordinate to the combat functions and training. There are also several reference manuals.

The Commander's Intent in Action

The Directorate of Army Doctrine has been in existence for two years it is now time to provide the army with a situation report and an overview of what is to come. In these two years, the directorate, with the assistance of many organizations has started to renew our doctrine. Doctrine throughout the last 25 to 30 years was seen only as conceptual model with little application to the force in being or the force coming on the near horizon. In establishing the directorate

the Chief of the Land Staff directed that doctrine be refocused to ensure its relevance to today's army and its timeliness for tomorrow's army. Using these factors as our guide we have started to refocus our doctrine. You are seeing the first elements of this amended doctrine coming to your units.

A number of important concepts have been introduced or reinforced. First, in Canada's Army (B-GL-300-000/FP-000), we have redefined our understanding of professionalism and ethos as the essence of our army. The representation of the spectrum of conflict

and of the continuum of operations has been refined to ensure that the delineation in between operations other than war (OOTW) and warfighting, which represent the strategic military response to a situation are distinct from non-combat and combat operations, which are the actual deployed forces. These concepts are no longer seen as synonymous (see Figure 1).



Figure 1: The Continuum of Operations and the Spectrum of Conflict

The Canadian Forces (CF) also accept this theoretical representation. It has confirmed what most of us has experienced; the lack of a declaration of war does not mean that a soldiers life is not at risk and that we will be expected in some circumstances to conduct both combat and non-combat operations at the same time. This new representation has done away with the concept of intensity of conflict, which was ill defined and had little operational application. To a soldier combat operations can only be high intensity.

The next major evolution was the rebirth of a formally articulated Canadian operational level doctrine in B-GL-300-001/FP-000. We have also redefined combat power away from the traditional corps tribalism as described later in this update.

The formal adoption of the manoeuvrist approach to operations and of mission command as the philosophical cornerstones of our doctrine (B-GL-300-002/FP-000 and B-GL-300-003/FP-000) are major milestones. You can read more on these last two subjects by consulting Army Lessons Learned Centre "Dispatches" Volume 5, Number 1, March 1998.

The doctrinal evolution continues with the ongoing production of Sustainment, Information Operation, Protection, Firepower and Army Training keystone doctrine manuals. Once these are completed the Canadian army will have a current series of keystone doctrine manual to guide its operational thinking. One of the goals of this writing effort is to eliminate duplication between manuals therefore making them much smaller, enabling us to use a pocket book format instead of the previous letter sized format.

As we refine our keystone doctrine the work started on the subordinate doctrine manuals and on Tactics, Techniques and Procedures (TTP). You should have seen the drafts of Unit Standard Operating Procedures (SOP) and a tactical aide-mémoire. Once approved these manuals will replace the current range of unit SOP and aide memoires in all army units domestically and on deployed missions. Formation SOP will also replace the current brigade and divisional SOPs. The Electronic Battle Box is the electronic repository of operational information to support operation and training. A number of other specialized manuals are also in production.

The next milestones are the production of battle group and sub-unit operations manuals, a command support manual, an Intelligence Surveillance, Target Acquisition and Reconnaissance (ISTAR) manual, a Peace Support Operations manual and amendments to the Tactics, Techniques and Procedures for the Tactical Command, Control and Communications System, Land Force Command System and LAV 3.

The Directorate is also investigating new technology to make it easier to discuss, critique and amend doctrine. Most of our published doctrine is available on the CF INTRANET at <http://kingston.dwan.dnd.ca/pubs> and on the INTERNET at <http://www.lfc.dnd.ca/dad/>. This fall the INTRANET site will be expanded to include the army bilingual dictionary. We are also in the process of providing a series of multimedia tools to help teach doctrine and to enable you to maintain your professional knowledge.

In the near future, the army will be completely digitized from the chief of the Land Staff right down to platoon level. As the army changes to meet technological and doctrinal change, we invite all readers to offer their input into the development of our doctrine.

Combat Power

As a parting shot, what is combat power? Combat power is the total means of destructive and/or disruptive force a military unit or formation can apply against an opponent at a given time and place. Combat power is not a home for corps tribalism or a concept applicable only at formation level. Any organized force can generate combat power.

To produce the desired effect on the enemy, combat power is applied through an inherent requirement to find the enemy in combination with the two dynamic forces of fixing and striking him. Armies pre-empt, dislocate and disrupt by fixing and striking the enemy, both on the physical and moral planes of conflict (see Figure 2).

Combat Functions

The army defines six combat functions: command, information operations, manoeuvre, firepower, protection and sustainment.

Commanders seek to integrate these functions and apply overwhelming combat power against the enemy where and when it is most beneficial. This is accomplished through the application of tempo, synchronization and designation of main effort whereby the intent is to convert the potential of forces, resources and opportunities into a capability greater than the sum of the parts. This synergistic effect provides the integration and coordination necessary to produce violent, synchronized action at the decisive time and place to fix or strike the enemy. Rather than attacking enemy strength, commanders seek to attack enemy cohesion by disrupting his efforts to generate combat power. This can be achieved by destroying or degrading individual functions, such as command or sustainment, or by attacking the links which integrate these functions, such as lines of communication. By doing so the enemy command structure may be denied information, coordination of manoeuvre may be disrupted, and enemy forces will be unable to sustain themselves. In this way, the enemy's inability to integrate his combat functions also frustrates his attempts to apply synchronization, slows his tempo and ultimately renders his main effort irrelevant.

Command. Command is the execution of military authority by a designated commander for the planning, direction, coordination and control of military forces.

Information Operations. Information operations integrate all aspects of information to support and enhance the other combat functions, with the goal of dominating the enemy at the right time, the right place and with the right weapons and resources. These operations take place within five interrelated components of information operations: command and control warfare, intelligence and information, command information systems, public affairs and civil military cooperation.

Firepower. Firepower, integrated with manoeuvre or independent of it, is used to destroy, neutralize and suppress and demoralize the enemy. Firepower should be viewed as a joint concept as it includes land, air and maritime delivered conventional munitions. It encompasses the collective and coordinated use of target acquisition data from all sources, direct and indirect fire weapons, armed aircraft of all types, and other lethal and non-lethal means against air, ground and sea targets.

Protection. Protection encompasses those measures a force takes to remain viable and functional by protecting itself from the effects of an enemy weapon systems and natural occurrences. Protection can be enhanced by active measures employing firepower, manoeuvre, air defence and counter-mobility to fix the enemy and, if necessary, destroy him before he can attack effectively. Passive measures include hardening of facilities and fortification of battle positions, protection of civilians and civilian infrastructures, Nuclear, Biological and Chemical defensive measures, as well as camouflage, concealment and non-electronic deception

Sustainment. Sustainment is achieved through the balance of military administration and civilian support through host nation support, other governmental departments and agencies, and civilian contractors. Military administration includes, primarily, personnel administration and logistics. Sustainment provides the physical means with which forces operate but also contributes to moral cohesion through effective medical services, flexible personnel administration and morale programs. Sustainment of forces is a function of all levels: strategic, operational and tactical. Within the tactical level of sustainment is the integral support, employing the echelon system, close support and general support combat service support units. Freedom of action is maintained through the continuity of the sustainment effort from the strategic to the tactical level. Combat power is maximized through tempo, main effort and synchronization.

Tempo. The commander controls the tempo of operations by speeding up, slowing down, or changing the type of activity. Tempo is the rhythm or rate of activity, relative to the enemy. It has three elements; speed of decision, speed of execution and the speed of transition from one activity to another. By completing his decision-action cycle consistently faster than the enemy, the commander makes the enemy's actions progressively irrelevant. The ultimate goal is to instill panic and paralysis in the enemy; as the enemy loses the cohesion he loses his will to fight. Tempo can be increased by avoiding battle unless absolutely necessary, and by relying on the ability of subordinate commanders to conduct independent action guided by the superior commander's intent.

Main effort. The commander designates a main effort to provide a focus for the actions of his subordinates. The identification of main effort encourages initiative while maintaining cohesion and unity of effort. If necessary, the commander must be prepared to shift the main effort.

Synchronization. The commander uses synchronization to focus his resources and activities to produce maximum combat power at the decisive time and place. The product of effective synchronization is the use of every resource when and where it will make the greatest contribution to success. Careful coordination is necessary to produce synchronization. The commander must first determine his aim and how the activities must be sequenced to achieve this. It includes, but is not limited to, the actual concentration of the manoeuvre force and firepower at the decisive point. There is also an important requirement for information to be passed quickly

across the levels of command to allow information to be processed and disseminated to enhance synchronization and increase tempo. Synchronisation is not only about time; it must be about time, space and purpose.

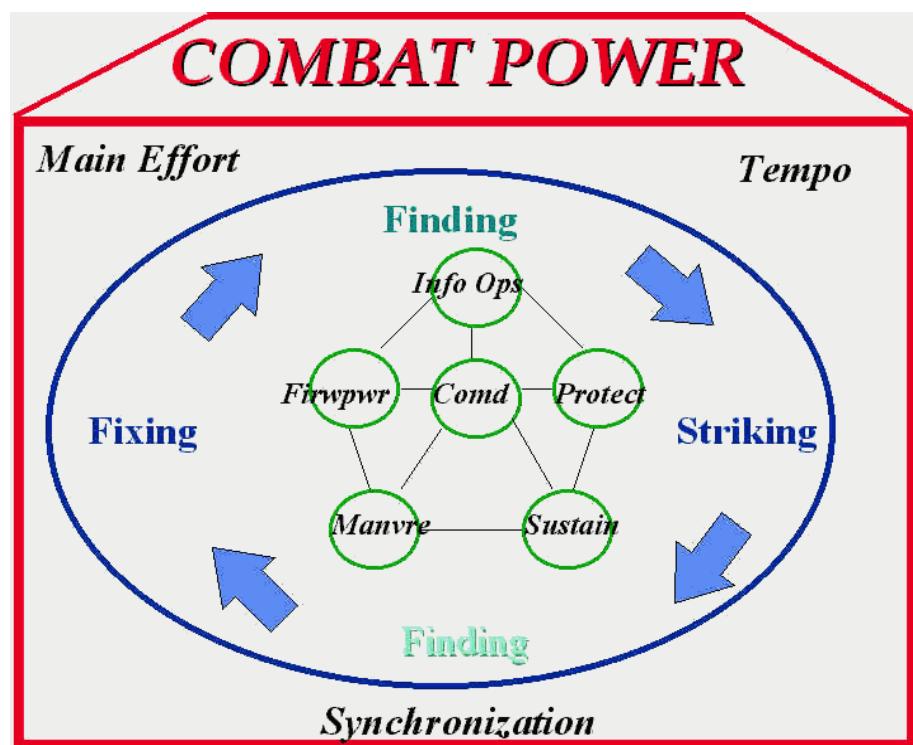


Figure 2: Combat Power

Directorate of Army Doctrine Contact List

Telephone: (613) 541-5010, Extension XXXX

CSN 271-XXXX

Fax: (613) 541-5903

DAD E-Mail: last name (up to first eight letters)@kos.net

(Name in brackets are newly posted personnel for the 1998 Annual Posting Season)

DAD - Colonel Jacques Morneau	5890
Lieutenant-Colonel Jacques Hamel	5890
Managing Editor, The Army Doctrine and Training Bulletin	
Captain John Grodzinski	5801
<u>Manoeuvre</u>	
DAD 4 - Lieutenant-Colonel Dave Martin	5912

(Lieutenant-Colonel John Moyer)	
DAD 4-2 - Major Peter Bartlett	5917
DAD 4-3 - Captain Al Doucet	TBA
DAD 4-4 - Captain Elizabeth Egglefield	5919
Major Guy Hamel	TBA
<u>Information Operations</u>	
DAD 5 - Lieutenant-Colonel Ted Luhtala	5870
(Lieutenant-Colonel Sylvain Bouffard)	
DAD 5-3 - Major Gord Ohlke	5817
DAD 5-4 - Major Lorne Leveck	5836
<u>Command</u>	
DAD 6 - Lieutenant-Colonel Mario Albert	5956
(Lieutenant Colonel Brad Boswell)	
DAD 6-2 - Major Dave Gosselin	5951
DAD 6-3 - Major Dan Thibeault	5803
DAD 6-4 - Major Mitch Kryzanowski	5991
<u>Firepower</u>	
DAD 7 - Lieutenant-Colonel Dennis Hartnett	5955
DAD 7-2 - Major Luiz Araujo	5982
DAD 7-3 - Major Steve Sparkes, RA	5967

(Major Terry Turner, RA)	
<u>Protection</u>	
DAD 8 - Major Mike Voith	5928
DAD 8-3 - Major Rob Roy	8708
DAD 8-4 - Major Denis Egglefield	5945
<u>Sustainment</u>	
DAD 9 - Lieutenant-Colonel Jack Springer	5948
DAD 9-2 - Major J. Oulette	8711
DAD 9-3 - Captain Murray Crawford	5946
<u>International Programmes</u>	
Major (Retired) Lou Grimshaw	5941
Coord - Ms Thérèse Lessard	5947
<u>United States Army Training and Doctrine Command Liaison Officer</u>	
Lieutenant-Colonel Dan Mahoney	8709
<u>Army Publishing Office</u>	
Publisher - Captain Jennifer Sentek	5931
Editor - Mr Gilles Langlois	5995
Information Technology Manager - Mr Joe Gilker	5920
Assistant Webmaster - Mr Evan Fleming	5920
Desktop Publishing - Ms Suzanne Le Blanc	5841
Desktop Publishing - Ms Anne Auclair	5902
<u>Orderly Room</u>	

Clerk - Ms Elaine McGrath	5906
Administration Clerk - Corporal Mary Beth Taylor	TBA

[\[Français\]](#)



From the Directorate of Army Training: An Update on Training Publications and Trends

The Directorate of Army Training

The Directorate of Army Training (DAT) has evolved over the last two years from several sections of the former G3 training organization of Land Force Command Headquarters. Although certain training functions moved to the Combat Training Centre (CTC) Gagetown, such as G3 Training Standards and Course Loading, most training functions have been incorporated into DAT in Kingston.

DAT encompasses the former G3 Armour, Artillery, Infantry, Engineers, Signals, and Logistics sections. Also included under the DAT umbrella are the former G3 Individual Training Policy, G3 Professional Development and Training Simulation Technology. Since the move to Kingston from St Hubert in the summer of 1996, DAT has evolved to include several new sections: Leader Development, Army Concepts, The Peace Support Training Centre the Joint Command and Staff Training Centre. The Directorate reports directly to the Army Training Authority (Commander 1st Canadian Division).

DAT will continue to evolve during 1998. DAT 2 remains responsible for Individual Training and DAT 3 for Collective Training. Two new sections have been established to address our current training initiatives. DAT 4 will co-ordinate "Future Training" and DAT 5 will specifically focus on Leader Development. Along with these changes will come another move sometime during 1998/1999. DAT will also move from the Base Hospital to the Grant Building at McNaughton Barracks, CFB Kingston.

What has the Directorate been up to? Specific details are amplified below, but Individual Training has focussed on the re-write of Officer General Specifications, providing a quantity control mechanism for the Individual Training Management Information System (ITMIS) (the Unit Qualification List) and the validation of some 25 courses. Collective Training has produced about a dozen new Battle Task Standards (BTS) which are currently being translated and published. These interim versions of the BTSs will be issued for the field army's use and comment prior to the release of the final version in about one year. Future work includes: the development of a software tool that captures the costs of collective training assigned as battle tasks; a new training cycle is being validated to ascertain its usefulness; and an army training strategy, which will attempt to balance individual and collective training is being developed. A new keystone manual—B-GL-300-008/FP-001 *Army Training* to be released shortly in draft—lays down the basic tenets and training philosophy and describes why we train the way we do. Various policies are being worked on: Individual Battle Task Standards, Warrior, physical fitness, Shoot-to-Live, evaluation and simulation.

What about next year? Individual Training will focus on rationalizing the demand on our Individual Training System. Collective Training is aiming to complete their work on the Battle Task Standards. Future Training will seek approval for the implementation of an annual Training Cycle and Leader Development will formulate the training, education and skill requirements of our leaders of the future. Next year will be another year full of challenges for the Directorate of Army Training.

Here are updates from the various sections of the Directorate.

DAT 2 (Individual Training)

DAT 2 focuses on army training policies and current and future training issues. It is led by Lieutenant Colonel Moyer who will be replaced this summer by Lieutenant Colonel Ryder-Burbidge. In the summer of 1998 DAT 2 will become solely responsible for Individual Training. Specific responsibilities include:

- a. **Distributed Training.** This includes all self-directed training. DAT 2 is responsible for the policy governing the development, production, promulgation and integration of distributed training products for use in Individual Training.
- b. **Training Validation Policy.** This governs the training validation process of individual training, which is used to review and change the Course Training Standard, and specification modification.
- c. **Individual Training (IT) Policy.** This forms a part of the Army Training Strategy which governs all aspects of the Army System Approach to Training (ASAT) and provides guidance on various aspects of IT, such as the conditions of employment which will pertain to certain advanced training components (i.e. Advanced TOW).
- d. **Personnel Production Requirements.** This is the production plan created and implemented to ensure that the Combat Arms Military Occupation Category manning levels are maintained.
- e. **Post-Graduate (PG) Requirements.** This involves: the establishment of academic and program criteria to meet Land Force Command training and manning requirements; the eligibility criteria for PG; and the number of personnel to attend.
- f. **Nationally Mandated Policies.** The Sexual Harassment and Racism Program (SHARP), Canadian Forces Military Equivalency Program (CFMEP), Canadian Forces Continuing Education Program (CFCEP), Association of Canadian Community Colleges (ACCC), and Training & Education for Environmental Stewardship (TrEES) fall under this category.

Current projects in DAT 2 include: the Unit Qualification List (UQL), a project intended to assign a particular unit with a given number of qualifications; Army representation and input into Officer Developmental Period (ODP) reviews; Army input into summary trial training implementation; providing army input and analysis for the restructuring of the Commanding Officers Tactics Course (COTC); Land Force Command Orders revision; Development of the DAT webpage; Army input into CFCEP policy; Distributed Training project management guide for multi-media development; course validations for 30 - 35 courses, and developing PD modules for unit commanding officers to use as off-the-shelf training packages for annual officer and non-commission officer professional development for a variety of topics including ethics, military writing and communication skills.

DAT 3 (Collective Training)

DAT 3 is primarily responsible for the development and amendment of all Battle Task Standards (BTS) for the army. Specifically, this includes Individual Battle Task Standards, corps and branch BTS and collective BTS, which include those for combat teams, battle groups and brigade groups. Most recently DAT 3's efforts have focussed on the amendment of current corps, branch and collective BTS to bring them in line with B-GL-300-002/FP-001 and to place them in a format which will aid in the standardization of training and evaluation throughout the army. It is intended to release the interim translated versions of battle group, combat team and virtually all corps and branch BTS to the Army by September 1998.

The DAT 3 staff is also responsible for the Integrated Occupational Specifications (IOS) for armour, artillery, and infantry; provide Army input for the occupational specifications of engineers, signals and combat service support trades based on feedback from the field. In addition, DAT 3 provides input into the Officer General Specification, Non-Commissioned Member General Specification and Land Environmental Specification which will all be transferred to DAT 5 by the summer of 1998.

DAT 3 is responsible for policy relating to military competitions, the detailed coordination and funding of Army conducted military competitions and Army participation in international military competitions. DAT 3 had recently become the Army office of primary interest for B-GL-304-003/TS-001, Range and Training Safety, and is responsible to review, coordinate and submit all Army comments and recommendations regarding that publication.

In addition to these primary responsibilities, the DAT 3 staff is in the process of working on a host of other issues. These include a review of IBTS, the Shoot-to-Live program, Tactical Command, Control and Communications System training and operating instructions, live firing requirements for TOW and air defence missiles, laser safety training requirements, physical fitness training programs, and development of a field firing course to name a few. A major project in 1998 will be to review the training time and resource requirements to complete BTS in order to update Field Training Regulations.

DAT 4 (Future Concepts)

DAT 4 is a new section introduced in the spring of 1998, and is led by Lieutenant Colonel Albert. DAT 4 is currently responsible for the following issues:

- a. Developing Army training cycle and strategy. Training Strategy defines and governs the training necessary to meet the needs of the Land Force operational requirements.
 - b. Developing training simulation strategy. This governs the development, acquisition, integration and employment of training simulation technology in both individual and collective training.
 - c. B-GL-300-008/FP-001 Army Training.
 - d. Army Risk Assessment Model.
 - e. Providing input for Land Force Strategic Direction and Guidance.
-

DAT 5 (Leader Development)

DAT 5 is another new section introduced in the spring of 1998 and is led by Lieutenant Colonel Stowell. DAT 5 is concerned with the following issues:

- a. Developing and revising the Army Professional Development (PD) Policy, coordinating officer PD training requirements and establishing PD requirements for non-commissioned members.
- b. Developing the Army Leader Development System.
- c. Development of an audit system for leader development
- d. Providing input into Land Force Strategic Direction and Guidance.

- e. Revising various specifications such as Officer General Specification, Land Environmental Specification, Non-Commissioned Member General Specification, Integrated Officer Specification.
-

Joint Command and Staff Training Centre

The Joint Command and Staff Training Centre (JCSTC) continues its expansion in 1998 with the opening of a JANUS Simulation Centre (JSC) at CFB Valcartier. The JSC in Valcartier is the third of its kind to open in Canada. The first one was opened at CFB Gagetown in March 1996 to deliver training mainly to the schools at CTC Gagetown and to the regular and reserve units in Land Force Atlantic Area. The second JSC opened in Edmonton in April 1997 to support the training activities of the regular and reserve units of Land Force Western Area.

The Land Force Quebec Area JSC at CFB Valcartier is the third of a series of four simulation centres to be built with the aim to support Land Force Area Tactical Training, from platoon to battalion level. Since this JSC is the most recent one, it will also become the most advanced technologically. It will provide the staff working at this center with all the tools required to deliver outstanding tactical training. The LFQA JSC should open in October 1998. Final plans are still being drafted. This JSC will allow better preparation before field training exercises for both commanders and staff. It will also mean an additional way of learning for the young officers, regular or reservists, who must attend a tactical course.

JCSTC in Kingston will remain responsible for formation level training (brigade and division) and to support the Canadian Land Force Command and Staff College (CLFCSC) in Kingston. It will also continue to support the development of multi-media presentations for the CLFCSC.

JCSTC will also continue to assist the Land Force Area JSCs in the delivery of battle group level training. The JANUS mobile suite can be merged to any permanent JANUS suite at any of the JSCs. This capability will allow an increase in the number of stations available for training and to increase tenfold the quality of training delivered.

Constructive simulation, which implies commanders and staff training at all level, is a new way of conducting training in Canada. Its evolution has been unwavering during the past three years. The opening of this new JSC is only the most recent proof of it. It will soon be difficult to find an officer, warrant officer or non-commissioned officer in the Army that is not familiar with the JANUS simulation system. They will all have been exposed to it during training in Kingston, on course at CTC Gagetown or, in a short while, at their own area JSC.

Constructive simulation does not aim at replacing field training. It is however, an excellent way to improve the quality of command post exercises by making them more challenging for the collective intellect of any command post or headquarters.

Peace Support Training Centre

The Peace Support Training Centre (PSTC) was established in Kingston in July 1996 to provide pre-deployment training for personnel tasked on peace support missions. The first course ran in September of that year and since then PSTC has conducted nearly 40 serials, training over 3000 personnel from across the Canadian Forces (CF). PSTC began operation with a staff of just five personnel, headed by the Director, Lieutenant-Colonel John Lockyer and has since grown to 22 members, both reserve and regular force.

Although the PSTC instructional staff provide a portion of the course content, the larger share is out-sourced

to subject matter experts from across the CF and the private sector. The basic peace support operations course focuses on the law of armed conflict, rules of engagement, mine awareness, overseas allowances and benefits, mission area language and culture training, current intelligence, current operations, terrain analysis, stress management, and foreign weapons recognition. PSTC currently trains personnel for OPERATION DANACA (United Nations Disengagement Observation Force), which has quarterly rotations of approximately 90 personnel, OPERATIONS PALLADIUM and NOBLE (Former Republic of Yugoslavia), OPERATION CALUMET (Multinational Force Observers – Sinai), United Nations Special Commission (UNSCOM) Iraq, Cambodian Mine Action Centre (CMAC) and United Nations Forces in Cyprus (UNFYCIP).

In addition to pre-deployment training, trainees on basic course 9801 participated in an unplanned practical exercise. In the midst of the recent ice storm, both PSTC staff and trainees took part in local efforts to help the Kingston community. This weekend deployment brought together a course of personnel from all services and varied classifications and gave them a chance to see how their service is needed not just abroad for the United Nations or NATO, but also by the communities within which they live and work.

For further information on the PSTC, contact PSTC via e-mail at pstc@limestone.kosone.com, or on the PSTC website <http://pstc.kgtn.dnd.ca>, or via CSN at 271-4812, or be added to the mailing list for "*Notes*". "*Notes*" is a quarterly publication providing information and news about current projects and activities at the Centre.

Individual Training Information Management Moves Towards the Future

The Combat Training Center Information System (CTCIS) project began in the late 1980's and arose from the conclusion of an initial analysis by the Commander CTC that there existed scope for automating a great number of functions within CTC. A Fredericton based company carried out a 3 year, in-depth study of this requirement, and in 1990 proposed several options for automating CTC functions. The CTCIS system architecture consisted of three main elements: a database containing all CTC Course Training Publications (CTP dB), a Document Management System (DMS) and a Scheduling and Resource Management System (SRMS). As these systems did not exist at the time; several more studies refined this requirement and proposed a further series of hardware and software options. In 1991 the project was temporarily abandoned while the Army was implementing small local area networks. At the same time the responsibility of managing information technology was given to the G6 Branch. This led to a more modular approach in implementing the system: rather than relying solely on the CTC IS architectural model, the LFC MAN/WAN systems will also be used.

Actual procurement of the CTCIS began late in 1995, when extensive upgrades to the CTC Gagetown ADP infrastructure were completed in order to provide the required CTCIS connectivity. Programming work also began in earnest on the CTP dB. In 1996, there was a further refinement of the base infrastructure and the procurement of the DMS. Also in 1996, the project name was changed to Army Individual Training Information System (AITIS), to reflect the transfer of the individual training function from LFC to CTC Gagetown. 1997 saw the procurement of additional hardware, software and infrastructure, as well as the refinement of the requirement for the SRMS. In 1998 activities will include the procurement of the SRMS, the rollout of the CTP dB to users, and additional user training.

AITIS' end-state will see a comprehensive area training centre and school support network that will permit staff and instructors to access a host of LFC and Centre of Excellence (CoE) training resources. In concert with several CoEs, CTC Gagetown is currently developing several Distributed Training (DT) products that will assist in the formation of LFC capability in this area. When the AITIS end-state is coupled with upcoming G6 initiatives to increase bandwidth and distribute these and other products more capably, a robust

and user-friendly system will be fully fielded. User awareness and involvement is key to this process. To this end, the AITIS staff will visit ATCs and Schools during 1998 to present this concept and answer any questions users may have. The AITIS staff is available at CTC Gagetown, CSN 432-1699.

Individual Training Management Information System

The Individual Training Management Information System (ITMIS) is the culmination of a number of projects and initiatives. Officially, ITMIS is the result of the Trainee Production Management System (Upgrade) (TPMS (U)) project. The aim of TPMS(U) was to provide a management information system to support the management of all individual training and professional development training within the CF. A second contributing project was the Financial Accountability in Individual Training (FAIT) project whose aim was to improve the efficiency and accountability within individual training. A third influence was the downsizing of DACDS, the NDHQ course loading staff and the decentralization of their responsibilities to the commands.

The resulting ITMIS application has two purposes. The functionality most familiar to the user community is the automation of the course loading and administration processes. This allows nomination of an individual to any course offered in the CF for a given fiscal year. The implication of this is that units no longer have to wait for a Bid Message prior to nominating their staff for training. The next step in the process is the matching of individuals to specific serials. This responsibility resides with the G3 Staff at CTC Gagetown for all national courses. Administration of the serial is a training establishment responsibility and they record trainees as they arrive, collate results by performance objective and the effective dates of qualifications. Once training is complete and the data is uploaded into the personnel data system and update action is therefore not required.

The second section of the application is a database that captures all training related information and its respective cost. Access to this data can be achieved through the preformatted reports that are built into the application or by individualized queries.

Current Situation. LFC has 12 servers deployed coast to coast to support the application and all LFC users. Responsibility for data entry was devolved to Land Force Area Headquarters in October 1997. This included responsibility for training all area users and the further devolution of data entry to the brigade headquarters and units. Each area has commenced the devolution process and further information is available from the following: Land Force Western Area - Captain R. Migadel or Master Warrant Officer S Kearsley; Land Force Central Area Captain M Allen or Captain L Kranenburg; Land Force Quebec Area Captain C. Doucet; and Land Force Atlantic Area Captain G. Melville.

Recent Events. March witnessed the release of ITMIS Version 3.1, which is a 32 bit application. The implication of this release is significant as it will not run on Windows 3.x operating systems. Users will have to migrate to Windows 95 or its equivalent for the application to run. April and May also witnessed the conversion of the operating system from SCO UNIX to Win NT. Concurrent with this will be the deployment of replacement of all 12 servers in the command.

ITMIS Help. All ITMIS users in Land Force Command have access to the national help desk at 1-888-486-4743. This service is bilingual during normal working hours for the Total Army and is the first line of technical and functional support. All other questions can be directed to either Captain S Neily or Sergeant M Louwet at CSN 432-3147

Telephone (613) 541-5010 Ext -XXXX

CSN 271-XXXX

DAT Fax CSN 271-4460

DAT E-mail address: datcoord@cgo.wave.ca (Note - DAT sub-sections can be contacted at the same EMail address but by substituting datcoord for the appropriate subsection such as dat2, dat3, dat4, or dat5.)

(Names in brackets are personnel who will be posted in the 1998 Annual Posting Season)

DAT – Colonel Bill Brough	4809
DAT Coord – Captain Shawn Herron	4807
DAT Budget Officer – Second Lieutenant Louie Jeromel	4818
DAT Clerk – Master Corporal Gord Nichol	4805
<u>Individual Training</u>	
DAT 2 - Lieutenant-Colonel John Moyer	4820
(Lieutenant-Colonel Rick Ryder-Burbidge)	
DAT 2-2 (IT/PD) – Major Pete Brown	4836
(Major Bart Gauvin)	
DAT 2-2-2 (IT/PD) – Captain Ronald Roy	4837
DAT 2-3 (Analysis) – Major Cal Carter	4822
(Major Dalton Cote)	

DAT 2-3-2 (Validation) – Captain Pete Elwood	4824
DAT 2-3-3 (Validation) – Captain Laurent Vaillencourt	4825
<u>Collective Training</u>	
DAT 3 - Lieutenant-Colonel Dave Bondurant	4821
DAT 3-2 (Armour) – Major Ralph Kennedy	4832
(Major Dave McLeod)	
DAT 3-3 (Infantry) – Major Brad Boswell	4828
(Major Bill Leavey)	
DAT 3-3-2 (Infantry) – Captain Jules Vaillencourt	4834
DAT 3-3-3 (Infantry) – Master Warrant Officer Kimberley McAndrew	4834
DAT 3-4 (Artillery) – Major Bob Gummel	4833
(Major Al MacIntosh)	
DAT 3-5 (Engineers) – Major Eric Carey	4829

DAT 3-6 (Signals) – Major Andre Levesque	4831
DAT 3-6-2 (Master of Signals) – Chief Warrant Officer Rick Ward	4804
DAT 3-7 (CSS) – Major Denis Janelle	4835
<u>Future Concepts</u>	
DAT 4 – Lieutenant-Colonel Mario Albert	TBA
DAT 4-2 (Concepts) – Major Nick Martyn	4827
DAT 4-3 (Technology) – Major Brent Beardsley	4826
<u>Leader Development</u>	
DAT 5 – Lieutenant-Colonel Randy Stowell	4841
DAT 5-2 (Leader Development) – Captain Pete Winfield	TBA
DAT 5-3 (NCO Leader Development) – Chief Warrant Officer Doug Seed	TBA
DLFR 5-4 (Airlift) – Major Dave Baldwin	4823
(position will move to LFC HQ summer 1998)	

PSTC Director – Lieutenant-Colonel John Lockyer	4808
PSTC 2 (Standards & Development) – Major Roy Armstrong	5321
PSTC 2-2 (Standards & Development) – Captain Tracy Moore	8143
PSTC 3 (Chief Instructor) – Major Brian Jackson	4810
PSTC 3-1 (Course Officer) – Captain Steve Plourde	4806
PSTC 3-2 (Course Officer) – Captain Thomas Burke	8144
PSTC 3-3 (Course Officer) – Captain Guy Rouleau	8146
PSTC 4 (Training Support) – Major Nelson May	4811
PSTC (Chief Clerk) – Sergeant Gord Graham	4812
Fax: 541-8124	

Internet Website <http://pstc.kgtn.dnd.ca> E-mail pstc@limestone.kosone.com

Joint Command and Staff Training Centre (JCSTC)

JCSTC Director – Lieutenant-Colonel Dave Krauter	4379
JCSTC Deputy Director – Captain Richard Lavoie	4380
JCSTC Center Manager – Colonel (Retired) John Joly	4389
Fax: 541-4476	
Internet website http://jcstc.kos.net	

Combat Training Centre Gagetown

G3 – Lieutenant-Colonel Mark (Spike) Hazelton	(CSN) 432-2377
G3 Training – Major Pete Hauenstein	432-2054
G3 Training Standards – Major Hurdon Hooper	432-3819
G3 ITMIS – Captain Steve Neily	432-3028



Trust, Manoeuvre Warfare, Mission Command and Canada's Army

Lieutenant-Colonel "Chuck" Oliviero, CD

The Canadian army has recently made a big splash in introducing its new capstone manual B-GL-300-000/FP-001 *Canada's Army*. The need for new doctrine has long been recognized and it is laudable that the army finally got around to revisiting how it will have to fight the next war. Unfortunately, the method used to create our "new" Manoeuvre Warfare doctrine has a couple of elementary flaws. By borrowing most of new doctrine from our allies we have denied the dialectic, which those armies underwent in order to create their doctrine. Doctrine development is not a cut and paste affair – or at least it should not be. Unless the fundamental building blocks of culture, history and wartime experience are well understood, borrowed doctrine is bound to remain a foreign body embedded within our native doctrine. This "conceptual grafting" is quick and easy but it holds very little promise of success. The best case in point is the German concept of *Auftragstaktik* or Mission Command, as we have translated it.

In current military thinking, the astounding battlefield successes achieved by German military forces during the last century have been attributed, almost exclusively, to the technique of *Auftragstaktik*. German tactical and operational level fighting prowess has inevitably been linked to this uniquely German method of command and control. Naturally, such a concept cannot live in isolation, but too often, *Auftragstaktik* has been treated as a separate, or self-contained, entity. In reality, however, it is only one part of a highly complex and interconnected command and control system, which spans all levels of war as well as all chains of command. The very translation of *Auftragstaktik* into English as Mission Command is evidence of a fundamental misunderstanding of its meaning. In spite of this, Mission Command has been incorporated into current British, American, and Canadian, military doctrine as a *style* of leadership, this style somehow being expected to stand on its own. Yet, this idea has been taken from the modern *Bundeswehr* with little or no appreciation of the historical background, or the cultural baggage, which comes attached to the term. This "conceptual grafting" denies the very nature of *Auftragstaktik* by separating it from its societal roots. In light of this fundamental misunderstanding, it would be naive to believe that what worked for the *Bundeswehr* will work for other armed forces serving other political cultures and societies.

After the end of the Second World War, there began in military circles a great and abiding fascination with the *Wehrmacht* in general, and with its tactical doctrine in particular. Later, Colonel Trevor N. Dupuy, US Army (Retired), wrote extensively on the perceived combat superiority of the German army. But he was not alone. By the mid - 1980s, most professional military journals published articles extolling the efficacy of German army tactics and explaining how a country that was so numerically inferior could have held out against the Allies for as long as it did. Among most NATO armies, the tactical doctrine of the *Wehrmacht* became a *cause célèbre*.

With the increasing power, and concomitant involvement of Germany and the *Bundeswehr* in NATO affairs, more and more officers were exposed to German tactical doctrine. The growing shared military experience among the three major partners America, Great Britain, and Germany, after it began to rebuild its armed forces in 1956, became a major feature of the alliance. By the early 1980s, many officers in both the British and American armies had come to the realization that there was much of value in the German doctrine. At about this time in the United States, William Lind coined the term "Maneuver Warfare". The historical basis for Lind's new style of warfare drew extensively upon the *Wehrmacht* experience and so, not surprisingly, one of the key tools of this new style of warfare was *Auftragstaktik*. The circle had been closed. Studying the

battlefield successes of the German army now had significance and legitimacy that formerly had been lacking. This study went from being a hobby to being a legitimate part of a professional military education.

During the past two decades, perhaps no single subject has generated as much interest and debate as the German army's concept of *Auftragstaktik*. More than any single other idea, *Auftragstaktik* has stirred the imaginations of amateurs and professionals alike. It has been the subject of articles in such diverse military journals as the US Naval Institute *Proceedings*, the US Army War Command and Staff College *Military Review*, the *Canadian Defence Quarterly*, and the *British Army Review*. *Auftragstaktik* has been touted as the ultimate battlefield force multiplier as well as denigrated as unworkable fiction. It has been espoused by many as a panacea to solve all tactical problems; it has been scorned as a military myth. Unfortunately, although *Auftragstaktik* has been such a hot topic, few have managed to come to any more than a passing understanding of what the term actually means. The early development of *Auftragstaktik* has been an almost unstudied field. As a consequence, there is a dearth of information available on the subject. Although the term has been in usage for generations, only one book covers the subject in German and there are none in English.

The primary difficulty when talking about *Auftragstaktik* is one of definition. This does not stem merely from the fact that the word is difficult to translate into English. Even in German, the term raises controversy. Contrary to what is commonly accepted, Helmuth von Moltke the Elder, during his long tenure as Chief of the German

Great General Staff (*Chef des Großengeneralstabes*), did not invent the concept, although he may well be given credit for the introduction of the word into the German tactical lexicon. In fact, the word itself came long after the introduction of the concept. The idea was taught and practised beginning just after the turn of the nineteenth century, even if the term was not commonly used until this century.

In its simplest and most elementary form, *Auftragstaktik* refers to the mutual trust between superiors and subordinates, where a superior sets a goal and gives the subordinate free rein to achieve that goal. In its fullest and most elevated applications, it makes all members of a military chain of command participatory in the achievement of a mission. There is tacit trust up and down the chain of command and subordinates are allowed even the extreme action of disobedience, if it will result in the ultimate goal of the superior commander. The concept is based upon the pillars of the subordination of self to a superior's goal, independent action, and freedom of action at all levels.

The achievement of this better understanding of *Auftragstaktik* necessitates certain prerequisites. First, there needs to be a recognition of how and why the Germans created their own concepts of warfare. The development of the Prusso - German military was unique in Western European experience. Their military development followed a path divergent from all of their neighbours. Second, there is the need to appreciate the history of the creation and development of the Prussian General Staff system. Third, one must trace the intellectual development that drove tactical change for nearly a century. Beginning with the Napoleonic Wars, Prussian warfare redefined itself while the army simultaneously created a new paradigm for warfare. The last prerequisite is to have an understanding of the synthesis that was the product of this near-century of battlefield tactical development with the unique General Staff system.

This brings us back to NATO and its new warfighting doctrine. Although Mission Command has been adopted as one of the new building blocks of this doctrine, is it realistic to expect that NATO can successfully import *Auftragstaktik*? There is no simple answer, but the likelihood of the successful transposition of *Auftragstaktik* is slim. *Auftragstaktik* is merely the tip of the tactical iceberg. Seen holistically, *Auftragstaktik* encompasses many diverse aspects of the military profession. It includes the nature of war, the command climate, the educational process, the structure of the army, and the society that the army serves. The reality of most NATO countries in general, and of Canada, Great Britain, and the United States in particular, is that *Auftragstaktik* cannot simply be grafted onto our current leadership style.

Mission Command, or *Auftragstaktik*, is so deeply rooted in German culture that NATO cannot hope to replicate this battle-winning technique. In spite of the best intentions of those who have rewritten the doctrine, it simply cannot be done. The modern pillars of *Auftragstaktik*, even if one discounts the historical and cultural background, can be summarized as trust, training, and simple orders. Neither the current command climate, nor the training philosophy, nor the current philosophy of transmitting orders allows for the prerequisites demanded by *Auftragstaktik*. Canada simply cannot get there from here. The current philosophic underpinnings of our doctrine rely too heavily upon the belief that war is more of a science than an art. Almost daily, technology gains in importance, and although officers speak of embracing chaos, or of allowing more freedom to subordinates, the words do not reflect the reality of the current situation. *Auftragstaktik* is far more than Mission Command. It cannot be conceptually grafted from the *Bundeswehr* onto us. Although NATO can certainly learn from the German experience, it cannot incorporate a leadership style that is almost two centuries old by merely changing its name and inserting it into the manuals. Unless the receiving armies are willing to restructure their entire organizations, reconsider what their leaders believe to be most important in battle, revamp their educational systems from basic training to their staff colleges, and formally institute general staffs, then NATO must accept that this experiment is doomed from the outset.

Our new tactical doctrine is welcome and long overdue. Unfortunately, however, Canada has attempted to take a short cut on the necessary road to doctrinal development. Cutting and pasting successful doctrine from other armies is a dangerous, if inexpensive, solution. With an army as professional and committed as ours we owe it to ourselves to follow the steps of doctrinal development. Quick fixes and conceptual grafting, as tempting as they may be, are recipes for disaster. Of course we can learn from German historical experience, but in order for us to correctly learn from this experience we need firstly to understand all of the historical, societal, tactical and cultural influences, which came to bear upon the German military over a period of almost a century that allowed them to create *Auftragstaktik*. Only then can we correctly and successfully begin to implement our own form of this tool – call it Mission Command or whatever else.

Lieutenant Colonel C.S. Oliviero has a BA in history and an MA in War studies from The Royal Military College of Canada. He is a graduate of the two year German General Staff course in Hamburg. Lieutenant Colonel Oliviero has been studying *Auftragstaktik* for almost twenty years and has completed the first book on the subject written in English. Lieutenant Colonel Oliviero's background is in armour and armoured reconnaissance. He commanded the 8th Canadian Hussars (Princess Louise's) in Germany and has been a member of the Directing Staff at the Canadian Land Force Command and Staff College (CLFCSC). He is currently Chief of Staff of the CLFCSC.

[\[Français\]](#)



Le Coup D'oeil

Lieutenant-Colonel Richard Giguère, CD

"Operational efficiency lies in a combination of sound logic and powerful intuition, the synthesis of military science and art."¹

We appear to be at the turning point between two eras. In book after book and speech after speech we are told that the industrial era is now giving way to the "information society"² or a "biotechnical century"³. Since the increasing preeminence of information cannot be questioned⁴, we therefore have to face the many challenges posed by this veritable revolution, a revolution which will inevitably affect all of our society's areas of activity⁵. In this environment, it is imperative that military men lay the foundations of another type of army and abandon the certainties which have always guided their actions in order to replace them with concepts that will somehow or other define tomorrow's situation. We obviously cannot predict the future⁶, but it is always possible for us to comprehend the forces and trends that will characterize it. To my mind, intuition will play a paramount role in this pursuit of truth. The most successful leaders will be those who display the faculty to quickly perceive a truth that is usually hidden from the mind or discernible only after prolonged study and reflection, namely, the famous "coup d'oeil". The leader has the responsibility to create the future for his organization by means of a vision. This vision, the objective to be attained, is the preserve of instinct, intuition and inspiration - in short - the preserve of the "coup d'oeil". On the other hand, the strategies that will enable us to arrive at this vision clearly belong to the realm of intelligence. Effective leaders will be those who possess the "coup d'oeil" enabling them to conceive an image of the future. The vision must be clear and coherent and be the expression of the leader's will in his desire to create the future for his organization.

A Paradigm Shift

From 1947 to 1989, the East-West split dominated international relations. Within the framework of what General De Gaulle described as the twin hegemony, each side was led by a superpower: the United States or the Soviet Union, and belonged to one of two military alliances: NATO or the Warsaw Pact⁷. According to Raymond Aron's famous phrase, it was the era of impossible peace and improbable war. But the power and influence of the Soviet Union went into global decline in the nineteen-eighties. The Berlin Wall came down in the autumn of 1989, and the Soviet Union and the Warsaw Pact disappeared from the international scene at the end of 1991. The Iron Curtain having come down, the East-West rivalry was well and truly a thing of the past. The West had won a cold war that, in fact, had never been directly fought⁸. Let us not get tangled up in the details, but rather benefit quietly from the dividends of peace...

However, media reports confirm beyond all possible doubt that the collapse of bipolarity has not resulted in a new world order where peace and security reign supreme. As Daniel Colard⁹ points out: "on the contrary, international relations observers and theoreticians speak of widespread international disorder, a balkanized planet, a new Middle Age, a world without direction or a world without a master." Incredibly, we live in a era of "a slightly less impossible peace, of more probable war."¹⁰ It is quite evident that the military profession

cannot allow itself to be lulled by the frequently utopian discourse of the apostles of universal peace. As long as states exist, they will have interests to defend, conflicts to resolve. Is it necessary to recall the famous phrase of Lord Palmerston, a British nineteenth century minister and the inventor of realpolitik: "We do not have eternal allies and we do not have perpetual enemies; only our interests are eternal and perpetual; and it is our duty to pursue them."¹¹ It thus appears that a perfectly just and peaceful new world order is not about to be established, and the tragedies and fighting in Sarajevo, Somalia, Haiti and Iraq are graphic reminders. Today states are still inclined to use military strength to defend their interests. As military professionals, it is therefore our duty to ask the eternal question of which military estimate writers are so fond: So what?

In my view, more than forty years of cold war has had a dulling effect on the imaginations of Canadian strategists and tacticians. We must absolutely cast off the shackles of bipolarity and courageously face the new challenges posed to us and the profession as a whole. Despite major technological progress since the end of the last world war, the military end state, namely, the outcome of a war between NATO and the Warsaw Pact, was always predicted. For decades we kept on rehearsing the manoeuvres in Europe which were to enable us to halt, then counterattack the communist hordes coming from the East and sweeping into the Fulda Gap. We must realize that all this is now in the past. I am not suggesting that the world has suddenly become a haven of peace. What I am saying is that the traditional military threat has faded¹² and that we must quickly take the dangers of the new global strategic situation into account so as to be able to entrust realistic missions to armed forces that are equipped and trained to effectively counter the possible threats of the future. But that is where the problem lies: What are the threats that will have to be countered? In what environment will our armed forces have to operate? What does the future hold for us?

"I Have a Dream"

It will take a clever man to predict the future with certainty. On that subject, I always like to recall the predictions that some individuals have ventured to make in the past: "Everything that had to be invented has been invented" (Charles H. Duell, American patents commissioner, 1899), or "I think there is a world market for five computers at the very most" (Thomas Watson, CEO of IBM, 1943)¹³. I believe, however, that it is possible for us to understand the trends and forces that will characterize the future. This constitutes, in fact, the distinctive feature of futurology, a study whose purpose is to predict the direction of humanity's future scientific, economic, social and technical developments.¹⁴

In a remarkable book that I would recommend to all military men interested in what the future holds for us¹⁵, the retired American General Gordon R. Sullivan asserts that the leader of an organization has the responsibility of creating the future. And in order to conceive the future, one must first be capable of imagining it. Our subordinates expect us to communicate certainties about the future to them, but this is unfortunately impossible. However, our responsibility as military leaders is to articulate a vision, a context, which although relatively imperfect and imprecise, will enable our military organization - at all levels - to create its own future.

The method used by General Sullivan as he juggled with the destiny of the American Army in 1991 was to imagine himself in the future looking back at the present in order to determine the paths leading to his vision of the future. This method is often used by runners. During the race, they imagine themselves at the finishing line, which gives them the concentration and mental strength necessary for meeting the challenges posed by the race. This method was beneficial to General Sullivan. Turning other alternatives over in my mind, I remembered a passage from Clausewitz's work. After remembering my old references¹⁶, it seemed to me that I had discovered, in a work written in the early 19th century, a potential solution in my search for a beacon for the future. According to Clausewitz, "war belongs to the sphere of chance. In order to triumph unharmed in this incessant confrontation with the unexpected, two qualities are indispensable: firstly, an understanding,

which, even in the darkest moments, retains a trace of the inner light that leads to the truth; then, the courage to follow that faint glimmer. The first quality has been figuratively described in French as the ""coup d'oeil"". The other quality is determination.¹⁷ In an era characterized by chance and uncertainty, we need more than ever leaders possessing these two essential qualities.

The "Coup D'oeil" and Determination

The "coup d'oeil" does not mean only the physical eye, but also the mind's eye. In fact, the "coup d'oeil" is the ability to quickly recognize a truth, usually hidden from the mind or discernible only after prolonged study and reflection. As stated in B-GL-300-001/FP-000 (Conduct of Land Operations - Operational Level Doctrine for the Canadian Army), creativity and intuition are necessary to a commander who visualizes the future situation. This ability to visualize the future constitutes, in my view, the "coup d'oeil"; an ability that military leaders at all levels must possess in order to effectively face the challenges posed by a constantly evolving world. Determination is quite simply the will to pursue the vision captured by the "coup d'oeil" and the courage to shoulder the responsibilities relating thereto.

Military action is both a science and an art.¹⁸ I am however convinced that the scientific aspect of our profession was given greater importance by the Cold War, itself a product of the industrial age. Doctrines and tactics were, in practice, immutable. Everything was decided in advance and leaders had only to carry out the directives emanating from higher Headquarters. Like a smoothly-running industry, the mechanisms that were to enable NATO to thwart a possible communist aggression were perfectly adjusted and ready to do the job; and almost no one thought of calling into question the indisputable dogmas of the Cold War. We frequently ridiculed the passivity of the leadership of the forces that confronted us. We must nevertheless admit that at the doctrinal level, guided by an approach that advocated attrition of the opposing forces, initiative was not necessarily the hallmark of the Western forces, leaders often being told how to carry out their missions.

Recently, the Canadian Army has, however, adopted the manoeuvrist approach to operations. Importance is now placed on what to do and not how to do. Decentralization of authority is now one of the basic principles of mission command, the style of command best suited to the manoeuvrist approach.

The manoeuvrist approach to operations and mission command are concepts that are ideally suited to the battlefields of the future the chief characteristics of which might be a greater dispersion of military elements, the omnipresence of information and much more lethal weapons systems. However, these concepts place much more emphasis on the art of war, the art which "selects, combines and produces."¹⁹ Military leaders must now learn how to manage the unforeseeable at a much more decisive level than during the Cold War era. In order to meet the challenge of unpredictability, the Canadian Army has need of visionaries, of clear-sighted leaders at all levels.

Vision

Vision is not just a statement of no importance prominently placed at the beginning of a book. As stated in B-GL-300-001/FP-000, vision is an expression of commanders' wills. Vision is the beacon which will guide our efforts in the achievement of the desired end state. As General Sullivan points out, the impossibility of conceiving the future can be attributed to many causes, but it always begins with a lack of vision. At all levels, leaders must endeavour to articulate a vision for the organization for which they are responsible. This vision will enable them to create the future and implement the strategies making it possible for them to advance towards it.

The Americans got a general picture of the conflicts of the future while fighting against Iraq in 1990-91. The

Gulf War was, in fact, one of the first conflicts of this third wave suggested by the Tofflers. Their "Force XXI" and "Army after Next" projects clearly indicate that they have permanently abandoned the paradigms of the Cold War, and are resolutely grappling with the challenges of potential conflicts of the future. We did not experience this "significant emotional event" in Canada. In my view, we are much too slow in reacting to the new environment. It is high time for leaders at all levels to articulate a vision of what their organization could be in the near future. And in order to articulate this vision, they must make sure that they listen to leaders who possess this "coup d'oeil" ability and the determination to give concrete expression to this image of the future. This vision will obviously not be perfect nor fully realized. But it will at least play a paramount role of catalyst in our efforts to determine the missions, roles, characteristics and capabilities of the future Canadian Army.

What will the Canadian Army be like in 2020? In what global and national environment will our soldiers operate? What will be the roles and missions potentially assigned to our soldiers? What will be the characteristics and capabilities of our land forces in the future? These are the kinds of questions that must be asked now if we wish to be able to meet tomorrow's challenges. Trying to improve an army designed for the Cold War will fail miserably in my opinion, for the reference points of bipolarity are no longer valid. We have to think defence differently. We have to renew our military system. We have to take into account the reference points of the new strategic context in order to articulate an appropriate vision of the future - of our future. The "coup d'oeil" and determination of our leaders will make all this possible.

Lieutenant Colonel Richard Giguère holds an Honours BA in Military and Strategic Studies from the Collège militaire royal de Saint Jean and a post graduate degree in Strategic Studies from the Université Paris Nord. His service includes various appointments with all three battalions of The Royal 22e Régiment in Canada, Germany and Haiti. He is also a graduate of the Collège Interarmées de Défense in France. Lieutenant Colonel Giguère is currently serving with the Directorate of Land Strategic Concepts in Kingston and will be assuming command of the 2nd Battalion Royal 22e Régiment this summer.

Notes

¹ Quotation of Henry Mintzberg reproduced in Francart, Loup. "Penser l'Action pour Mieux Agir". In *Défense nationale*, April 1997, p. 49.

² See, for example, Toffler, Alvin and Heidi. *War and Anti-War: Survival at the Dawn of the 21st Century*. Toronto: Little, Brown and Company Ltd., 1993, or by the same authors. *La 3ème Vague*. Paris: Denoël, 1980.

³ Read on the subject Rifkin, Jeremy. "The Second Genesis". In *Maclean's*, May 4, 1998, Vol. III, No. 18, pp. 49-52.

⁴ This is a premise underlying the analysis and recommendations in *Canada 2005 - Globalization: Strategies and Opportunities*. Report of the ADMs Subcommittee. Interim outline, Volumes I and II, Ottawa, February 25, 1997.

⁵ The Americans speak, for example, of "Revolution in Military Affairs" and "Revolution in Business Affairs". The relevance of a revolution in military affairs is currently being debated in military circles. See *Summary Report from the Conference on Preparing Now: Alternative Paths to Military Capabilities for an Uncertain Future*. Report prepared by the Institute for Foreign Policy Analysts. Washington, February 1998.

⁶ Hence the famous quotation from Mark Twain: "Ne faites jamais de prédition si vous pouvez l'éviter, surtout pour l'avenir." Lefebvre, Admiral Jean-Charles. "Les Menaces Potentielles". In *Défense nationale*, April 1998, p. 3.

⁷ From Boniface, Pascal. "Guerre Froide et Détente". In Boniface, Pascal, publisher. *Atlas des Relations Internationales*. Paris: Dunod, 1993, p. 22.

⁸ "The third world war - for which we were as strategically, technologically and economically prepared as we were intellectually - was won in the most elegantly possible fashion without there being any need to fight it." Lefebvre, Admiral Jean-Charles. *Op. cit.*, p. 4.

⁹ Colard, Daniel. "La Société Internationale après la Guerre Froide". In *Défense nationale*, February 1997, pp. 65-67.

¹⁰ Phrase of Pierre Hassner. Used in *ibid*, p. 67.

¹¹ See Boniface, Pascal. "Le Nouvel Ordre Mondial". *Op. cit.*, p.8.

¹² The American Army held a symposium at Carlisle Barracks, from March 31 to April 2 of 1998, on asymmetrical threats that could challenge American interests throughout the world. For more information on the subject, see, for example, Gulmartin, John F. *Technology and Asymmetries in Modern Warfare*, or Metz, Steven. *Transnational Enemies: Threats without Names*.

¹³ For other quotations of interest, see Gregg, Allan R. "Brave New Epoque". In *Maclean's*, April 6, 1998, Vol. III, No. 14, pp. 56-60.

¹⁴ Not to be confused with futurism, an esthetic doctrine formulated by the Italian poet Marinetti, marked especially by an effort to give formal expression to the dynamic energy and movement of mechanical processes. Also, a point of view that finds meaning or fulfillment in the future rather than in the past or present. Source: Merriam Webster's Collegiate Dictionary.

¹⁵ Sullivan, Gordon R., and Michael V. Harper. *Hope is not a Method*. Toronto: Random House, 1996.

¹⁶ Chaliand, Gérard. "Carl von Clausewitz". In *Anthologie Mondiale de la Stratégie*. Paris: Robert Laffont, 1990.

¹⁷ *Ibid.*, p.845.

¹⁸ See Francart, Loup. *Op. cit.*, p. 42.

¹⁹ General Colin. *Les Transformations de la Guerre*. 1913

[\[Français\]](#)

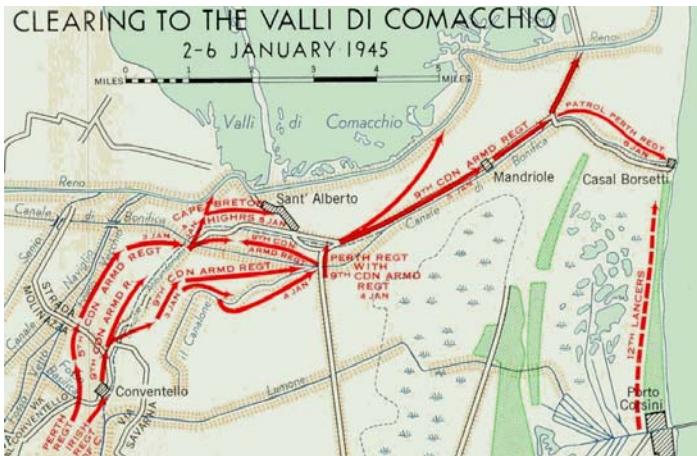


"Crack Canadian Troops"

Clearing the South Bank of the Valli Di Commachio

2 – 6 January 1945¹

Lieutenant-Colonel Mike Cessford, CD



Operation SYRIA was one of the last engagements fought by the Canadian Army in Italy in the Second World War. As such it is illustrative of the very high level of tactical expertise common to Canadian units in the last year of the war.

By December 1944, the Allied advance into northern Italy had ground to a halt. Exhausted and understrength, the troops of the US 5th and British 8th Armies (15th Allied Army Group) could do no more. Four months of heavy fighting had brought the Allies across the Apennines and into the Romagna Plain. A combination of miserable weather, difficult terrain and fierce resistance had, however, stopped the offensive short of its objectives. On 30 December, the 8th Army ended offensive operations, adopting defensive positions along the line of the Senio River. Planning then focused on a spring offensive which would clear German forces from northern Italy and bring the Allies to the border of the Greater German Reich.²

The 1st Canadian Corps anchored the 8th Army's eastern flank. Its two divisions, with two attached British brigades, manned a 32 kilometre arc that ran west from the Adriatic coastal town of Porto Corsini before curving sharply south along the bank of the Senio River to the town of Cotignola. The British 9th Armoured Brigade Group screened the Adriatic marshes on the Corps' right flank. The 12th Infantry Brigade, 5th Canadian Armoured Division, held the centre of the Corps' defence. To the west, the 1st Canadian Infantry Division, reinforced with the British 21st Tank Brigade, defended the remainder of the Canadian line, from Fusignano to Cotignola.³

The German 10th Army's 73rd *Infanterie Korps* faced the Canadians. Newly activated from a coastal defence command, the *Korps* lacked armour and artillery. Nevertheless, the Corps' two infantry divisions, the 114th *Jaeger* and 356th *Infanterie* took advantage of northern Italy's excellent defensive terrain. German infantry manned defensive positions along the raised banks of the numerous canals and streams which laced the Romagna. Behind these ready-made tank obstacles, the 73rd *Korps* massed its few tanks and self-propelled guns, ready to counter-attack any penetration of the German defence. These tactics served the Germans well in their slow retreat from the Apennines.

The positions held by the 73rd *Korps* also offered the potential for offensive operations. The 114th Division held a narrow strip of land south of the Valli di Comacchio. This lodgement threatened the city of Ravenna, a mere 10 kilometers beyond the forward German pickets. A spoiling attack along this axis would have threatened the 8th Army's exposed lines of communication. This was a threat the Allies could not ignore. German forces in Italy, were demonstrating a renewed aggressiveness, possibly influenced by accounts of German successes in the Ardennes offensive⁴. On 26 December, the German 51st *Gebirgs Korps* had attacked the US 5th Army, driving five miles into the Serchio valley. The German advance had threatened the key port of Leghorn, forcing the deployment of Army Group reserves into the area.⁵

Canadian fears were further aroused when, on the night of 26/27 December, considerable activity was reported in the German lines near the town of Alfonsine. German artillery was unusually active and Canadian outposts heard the sounds of significant vehicle movement⁶. It appeared that the 73rd *Korps* had been reinforced, possibly as a prelude to an attack.

Acting on the reports of activity, the 8th Army decided to remove the German threat at Ravenna. The Canadian Corps was ordered to clear the south bank of the Valli di Comacchio, destroying the forward positions of the 114th *Jaeger* Division. The Corps Commander, Lieutenant-General Charles Foulkes, gave this mission to the 5th Canadian Armoured Division. The Divisional Commander, Major-General "Bert" Hoffmeister received his orders on 27 December. Ordered to clear the south bank of the Valli di Comacchio, from Sant' Alberto to the Adriatic coast the operation, codenamed SYRIA, began at 0500 hours, 2 January 1945.

The 5th Armoured Division was one of the veteran divisions of the 8th Army. Four months before, it had spearheaded the 8th Army's attack into the Gothic Line. Attacking from the line of march, the 5th Division unhinged the Gothic Line, catching the German defenders before they had fully manned their positions. The loss of the Gothic Line ended German hopes of containing the Allies in the Apennines and almost precipitated a German withdrawal to the Po River⁷.

Hoffmeister had earned a reputation as an outstanding divisional commander. He had commanded an assault battalion during the invasion of Sicily, had guided the 2nd Canadian Infantry Brigade through a very tough battle at the Moro River and Ortona and had led the 5th Division in the Liri Valley and Gothic Line battles. He was a tough and dynamic officer who had consistently demonstrated a rare tactical flexibility. After almost continuous contact with some of the finest German formations in Italy, his subordinate commanders and staff were equally experienced⁸.

At Valli di Comacchio, the 114th *Jaeger* Division defended a sector over 15 kilometres in length; a task almost beyond the capabilities of the Division which had only been upgraded from an anti-partisan formation in 1943. With only two infantry regiments, the 114th Division lacked the third regiment common to most German infantry divisions⁹, however, the nature of the terrain did, to some degree, compensate for the Division's lack of strength. The Adriatic marshes stretched almost eight kilometres inland, effectively blocking any advance along the coast. This allowed the 114th Division to echelon its two regiments in the more open terrain found in its west sector. The 721st *Jaeger* Regiment, reinforced with Panther tanks, self-propelled anti-tank guns and elements of an independent machine-gun battalion, held the German forward line. The Regiment's three battalions were dug-in along the Lamone River and a small canal, the Fosso Basilica. These two obstacles formed an effective anti-tank barrier, broken only by a kilometre wide corridor of open terrain between the villages of Grattacoppa and Convetello. The 3rd Battalion, 721st Regiment was ordered to block this key axis, the easiest approach to the Valli di Comacchio. The 114th Division's remaining regiment, the 741st *Jaeger* Regiment, occupied a series of positions in depth northeast of Convetello, centered around the village of

Sant' Alberto. The divisional reconnaissance battalion, the 114th *Aufklaerungs* Battalion, was in reserve.

Canadian planning initially focused on the positions held by the 114th Division. This emphasis shifted as Canadian intelligence identified a build-up of German forces around Alfonsine, five kilometres west of Conventello. The heavy shelling and vehicle noise heard on the night of 26/27 December had, in fact, signaled the arrival of the 16th SS *Panzer-Grenadier* Division (*Reichsführer SS*). A powerful formation, it was one of only four German mobile divisions in Italy. The 16th SS Division entered the line between the 114th and 356th Divisions and was well placed to strike the flank of the planned Canadian advance¹⁰.

The first report of the arrival of SS troops came from an Italian civilian on 27 December. The identification was confirmed on the night of 29/30 December when a patrol from the Lanark and Renfrew Scottish (12th Brigade) raided German lines south of Alfonsine. Documents and insignia taken from the bodies of two sentries confirmed the presence of the 35th SS *Panzer-Grenadier* Regiment of the 16th SS Division. On 31 December, prisoners and deserters were taken from the 36th SS Regiment and the 16th SS *Pioniere* Battalion. These identifications left little doubt that the complete Division had reinforced the 73rd *Korps*¹¹.

On 30 December, Hoffmeister issued his orders. The 11th Infantry Brigade would assault the gap between the Lamone River and Fosso Basilica, destroying the forward elements of 721st *Jaeger* Regiment and seizing Grattacoppa and Conventello. 5th Armoured Brigade would then exploit 11 Brigade's break-in, attacking through the 741st *Jaeger* Regiment to take Sant' Alberto¹². The capture of Sant' Alberto would place the 5th Division on the south shore of the Valli di Comacchio, effectively isolating the 114th Division and splitting the 73rd *Korps* in two. Having secured Sant' Alberto, the 5th Brigade would pivot east to drive to the Adriatic coast, effectively "rolling up" the remaining German defence along the south bank of the Valli di Comacchio. With the ground still frozen and the 5th Division attacking along the axis of the canals and streams flowing into the Adriatic, Hoffmeister planned to use his armour in mass to rapidly gain his depth objectives. The 12th Infantry Brigade and the attached British 9th Armoured Brigade Group would reinforce the shoulders of the Canadian assault, ready to block any threat from the flanks or augment the advance¹³.

The Irish Regiment of Canada and the Perth Regiment would lead 11 Brigade's attack. The Cape Breton Highlanders, with a tank squadron from the 8th New Brunswick Hussars, would form the Brigade reserve. Field Engineers, Crocodile flame-throwing tanks and self-propelled anti-tank guns were retained under Brigade command, ready for commitment as the situation warranted¹⁴.

The 11th Brigade moved into its assault positions in the early hours of 2 January 1945. At 0500 hours the assault battalions began their advance, moving behind an artillery barrage fired by one medium and three field regiments of artillery. At 0510, as the infantry closed on to their initial objectives, the guns began counter-battery fire against the German mortars and artillery pieces which had responded to the 721st *Jaeger* Regiment's desperate calls for assistance. German artillery caught one company of the Irish moving forward, inflicting some casualties and slowing their advance. The other companies pressed on and by 0800 hours the first objectives were in Canadian hands. The reserve companies were ordered forward and the two battalions fought their way into the German defences around Grattacoppa and Conventello. The reserve Hussar squadron then joined the battle with two troops placed under command of each of the assault battalions¹⁵. At 1315 the Perths reported the capture of all objectives, including Grattacoppa. The Irish, had engaged the bulk of the 3rd Battalion, 721st *Jaeger* Regiment, in and around Conventello and it took until 1800 hours to secure their objectives¹⁶. By day's end, the strength of the 3rd *Jaeger* Battalion was estimated to have been reduced to less than 50 personnel¹⁷. One Panther tank was destroyed in Conventello and two 75mm anti-tank guns captured.

The way was now clear for the 5th Armoured Brigade. At 1330 hours, the Brigade began deploying from concentrations three kilometres southwest of Conventello. The Brigade advanced with two regiments forward, the Hussars (less one squadron) on the left and the British Columbia Dragoons on the right. The Cape Breton Highlanders, 11 Brigade's reserve, came under command of 5 Brigade as the Canadian tanks passed through the assault battalions. Throughout the last hours of 2 January, the Hussars and Dragoons overran desperate rearguards of German infantry, self-propelled guns and Panthers. The German's resistance, coupled with the difficult terrain, slowed the Canadian advance and by last light the lead squadrons were three kilometres short of Sant' Alberto. The Cape Breton Highlanders advanced behind the tanks to link-up with the armour at 2200 hours, capturing 22 prisoners en route¹⁸.

The 5th Brigade's axis paralleled the Senio River and was vulnerable to a thrust into its exposed western flank. A successful counterattack by the 16th SS Division from the direction of Alfonsine would have sealed off the narrow Canadian penetration, isolating and pinning the 5th Brigade against the Valli di Comacchio. Well aware of this threat, the Irish and Perth quickly established defensive positions to guard the shoulders of the Canadian penetration. It was a measure of the Division's concern that a squadron was withdrawn from the Hussars to reinforce the Irish around Conventello. During the night of 2/3 January, the Perths established a screen of patrols to the west, covering the Fosso Vecchio canal. The Irish continued to widen the eastern shoulder of the breach, securing crossings over the Lamone River and linking up with elements of the British 9th Brigade Group.

At first light on the morning of 3 January, the 114th *Jaeger* Division counterattacked. Two companies of the 2nd Battalion, 721st *Jaeger* Regiment, reinforced with elements from an attached machine-gun battalion, assaulted the Perth's defence but were stopped in their tracks with heavy casualties. The commander of the 114th Division, Major-General Hans Elhert, then committed his divisional reserve against the 5th Brigade. The 114th *Aufklaerungs* Battalion, with a *Pioniere* company, launched three separate attacks against the Cape Breton Highlanders¹⁹. These attacks were repulsed, leaving 20 prisoners in Canadian hands and an uncounted number of dead on the battlefield. One Dragoon tank was knocked out and the Highlanders suffered two dead²⁰.

Unperturbed by the German counterattacks, the 5th Armoured Brigade ordered the Dragoons and Hussars to resume their advance early on 3 January. The Brigade's immediate concern was the Canale di Bonifica - a major obstacle blocking the advance towards Sant' Alberto. The Hussars, bypassing isolated pockets of German defenders, moved quickly towards the canal. The Regiment hoped to seize a bridge over the canal, establishing a key crossing over the last obstacle before Sant' Alberto. At 1500 hours, it appeared that the bridge was in their grasp. Caught off guard, the German defenders had failed to destroy the bridge. The first Hussar tank was just moving onto the bridge when a German soldier, ignoring the hail of Canadian machine-gun and tank fire, climbed under the bridge to ignite the demolition fuse. The bridge was blown into the canal but not before the German soldier was cut down. The Hussars, unable to force the canal, could only consolidate and wait for the Cape Breton Highlanders to close up. Such were the consequences of the actions of a single brave man. The frustrated Hussars could take some solace from the casualties they had inflicted on the enemy: 50 dead and 67 captured. They themselves suffered no losses and were at full strength, the squadron defending Conventello had previously been relieved by a squadron from the Lord Strathcona's Horse²¹.

The 5th Brigade responded quickly to the failure of the Hussar coup de main. The Dragoons, having closed up to the Canale di Bonifica, were ordered to drive east, towards a second bridge. Delayed by the old, dry Lamone riverbed (the Lamone River having been re-directed many years before), the Dragoons failed to reach the bridge before nightfall. The Dragoons then harboured, waiting for the infantry to link-up. Despite active opposition from German tanks, anti-tank guns, infantry and, on one occasion, the misguided attentions of the US Army Air Force, the Dragoons had gained four kilometres. One Sherman had been destroyed with three crewmen slightly injured. In return, the Dragoons had captured 26 personnel including a complete battalion aid post. Over a score of Germans had been killed or wounded²².

As the 5th Brigade cut into the German rear, The Perth Regiment was placed under its command. In replacement, the 11th Brigade was given The Westminster Regiment. At 1300 hours on 3 January, the Westminsters occupied the trenches dug by the Perths, assuming responsibility for the defence of the western shoulder of the Canadian penetration. The Perths, marching through the night, linked-up with the Dragoons early on the morning of 4 January. Further west, the Cape Breton Highlanders reinforced the Hussars on the Canale di Bonifica. The 5th Brigade now had two strong battle groups, each with an armoured regiment and an infantry battalion, massed along the Canale di Bonifica²³.

At 0400 hours on 4 January, heavy German shelling signalled the start of a major German counterstroke. Attacking east from Alfonsine, the *Aufklaerungs* battalions of the 16th SS and 26th *Panzer* Divisions, with the 1st Battalion of the 36th SS *Panzer-Grenadier* Regiment, struck the base of the Canadian penetration. This force, designated *Kampfgruppe Maier*, had been ordered to seize Grattacoppa and Conventello, re-establishing the German front and cutting off the 5th Canadian Armoured Brigade²⁴. This attack fell directly upon the positions held by the Westminsters.

The Canadians sliced this attack to ribbons. With German armour held-up as it attempted to cross the Fosso Vecchio, the 1st Battalion, 36th SS *Panzer-Grenadier* Regiment,

attacked without support. The result was disaster as the battalion was all but annihilated in the Westminsters' killing zones. A violent counterattack by 11 Brigade's reserve, an Irish company and an Hussar tank troop, knocked *Kampfgruppe Maier* back to its startline²⁵. Over 150 prisoners were taken while estimates placed the number of German dead and wounded at over 200.²⁶ The Westminsters, who had borne the brunt of the attack, reported total casualties of seven personnel wounded.²⁷

The 5th Armoured Brigade, ignoring the battle raging behind it, drove hard for the last crossing over the Canale di Bonifica. By 0850 hours, the Dragoons had one squadron overlooking the second bridge. Moving under heavy covering fire, a party of dismounted crewmen, led by their squadron commander, began to disable the bridge demolition charges. An attached engineer section quickly took over this task (presumably to the delight of the tankers) and, by noon, a Dragoon squadron and a Perth company were across the obstacle. A second squadron soon joined them, knocking out four anti-tank guns as it widened the Canadian bridgehead. This success was matched in the sector held by the Cape Breton Highlanders. An eight man reconnaissance patrol forded the canal and infiltrated the German defence, capturing 29 prisoners. The Highlanders reinforced this success, pushing two companies across the Canale di Bonifica. The Hussars, unable to cross this obstacle, advanced to the west, clearing the south bank of the Canale di Bonifica. In doing so, they captured two Panthers before linking-up with the Dragoons and Perths.

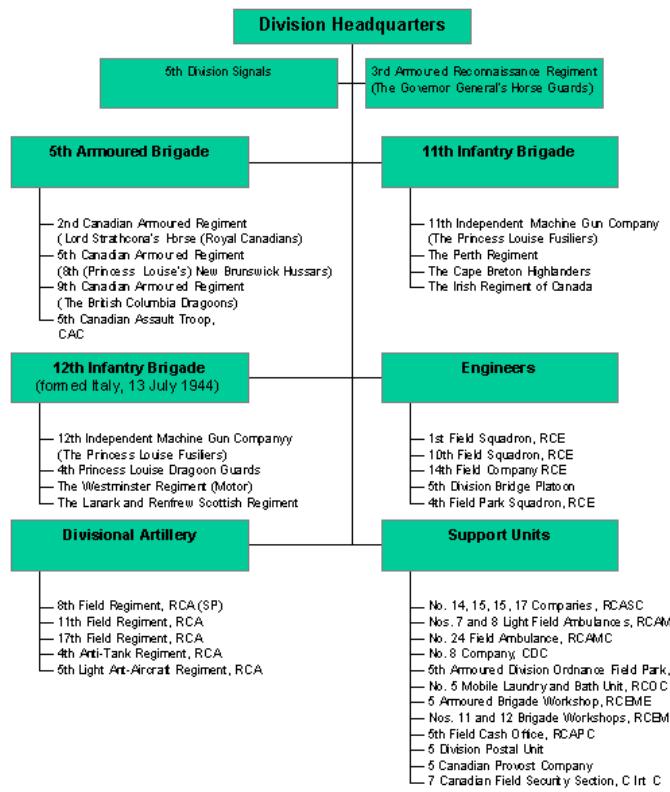
The failure of *Kampfgruppe Maier*, coupled with the 5th Brigade's successful crossing of the Canale di Bonifica, broke the back of the German defence. In the early hours of 5 January, Sant' Alberto was occupied by sub-units of the Dragoons and Perths. This battle group exploited its success, advancing quickly towards the Adriatic coast. Concurrently, a Dragoon squadron struck west, clearing the north bank of the Canale di Bonifica to link-up with the bridgehead held by the two Highlander companies. Forty-seven prisoners were taken, including some from the German 710th *Infanterie* Division. This formation, newly transferred from Norway, had been prematurely drawn into battle as the 73rd Korps sought to halt the Canadian advance²⁸. In any case, the battle was now all but over. On 6 January, the Dragoons and Perths, in the face of diminishing resistance, captured Casal Borsetti, on the Adriatic coast. The battered 114th *Jaeger* Division was withdrawn into reserve. The 710th Division replaced the 114th Division, taking up new positions astride the narrow Comacchio Isthmus. With the capture of Casal Borsetti, Operation SYRIA came to an end. It had cost the Germans well over a thousand casualties as opposed to Canadian losses of less than 200 all ranks (including 30 personnel killed in action)²⁹. Eight German Panthers, four self-propelled guns and 25 anti-tank and artillery pieces had also been destroyed or captured³⁰.

Apart from the tactical successes gained, Operation SYRIA had significant operational implications. Operation SYRIA was immediately followed by a similar action, conducted by the British 5th Corps and the 1st Canadian Division. These two operations by the 8th Army convinced the Germans of the need to reinforce their eastern flank. As a consequence, the 42nd *Jaeger* and 362nd *Infanterie* Divisions were transferred from the German 14th *Armee*, south of Bologna, to take up positions on the Senio River³¹. In one stroke German strength was reduced by almost one half at the precise point selected by the US 5th Army for its spring offensive³². Operation SYRIA was of equal value to the 8th Army as it prepared for its own spring offensive. Possession of Valli di Comacchio's south bank gave the 8th Army a direct approach into the rear of the German defences. On 6 April, the 8th Army sent an amphibious force across the Valli di Comacchio, the first in a series of assault landings designed to turn the German east flank. The forces were launched from the area of Sant' Alberto - positions which had been won by the 5th Canadian Armoured Division. It is doubtful if the 8th Army's commander, Lieutenant-General Sir Richard McCreery, had anticipated such an operational return on so small a tactical investment.

Operation SYRIA was a comparatively minor action fought in what had become, by late 1944, a secondary theatre of war. Nevertheless, it is an instructive example of the expertise attained by the Canadian Army in the closing months of the war. The 5th Canadian Armoured Division massed its combat power to ensure the success of the break-in and the subsequent exploitation to the Adriatic. Recognizing the threat to his flanks, Hoffmeister firmly anchored the shoulders of the Canadian penetration, setting the stage for the defeat of *Kampfgruppe Maier*. And, despite counterattacks from elements of three German divisions, the 5th Division never reduced the momentum of its operations as the 5th Armoured Brigade drove hard to the Adriatic coast, eradicating the last German footholds south of the Valli di Comacchio.

In February 1945, the 1st Canadian Corps left the Italian theatre to join the 1st Canadian Army in Northwest Europe. Operation SYRIA was the last major Canadian action in Italy and a fitting end to the Canadian presence in the 8th Army.

Lieutenant Colonel Mike Cessford enrolled in the Militia in 1970, serving as an infantryman with The Canadian Scottish Regiment (Princess Mary's). In 1978, he was accepted as an armour OCTP candidate, was commissioned in 1979 and joined The Royal Canadian Dragoons. He has served in both tank and reconnaissance units and recently was with G3 Plans staff with the U.S. 24th Infantry Division (Mechanized). Lieutenant Colonel Cessford holds a BA, MA and Ph.D. in history. His research has focused on the linkages between doctrine, training and operations. Lieutenant Colonel Cessford is presently serving with the Directorate of Land Strategic Concepts in Kingston.



Notes

Unless otherwise noted, all military documents cited are drawn from Record Group (RG) 24, National Archives of Canada.

¹ The term "crack Canadian troops" came from a captured intelligence Notes:

Unless otherwise noted, all military documents cited are drawn from Record Group (RG) 24, National Archives of Canada.

¹ The term "crack Canadian troops" came from a captures assessment by the German 278th *Infanterie* Division. The Germans routinely classed Canadian formations in Italy as assault units possessing high morale and tactical skill. 5th Canadian Armoured Division Intelligence Summary No. 107, 8 January 1945.

² Report by Field Marshal the Lord Alexander, "The Italian Campaign, 12th December 1944 to 2nd May 1945", pp.24-25.

³ Nicholson, G.W.L., *The Canadians in Italy*, (Ottawa: HMSO, 1956), p.644.

⁴ 12th Infantry Brigade, "Report on Operations - 27 December 1944 to 8 January 1945", p.2.

⁵ Fisher, E.J., *Cassino to the Alps*, (Washington: Government Printing Office, 1977), pp.407-410; Alexander, pp. 22-23.

⁶ 1 Canadian Corps Intelligence Summary No. 191, 27 December 1944.

⁷ Nicholson, pp.570-572.

⁸ In the Gothic Line battle, the 5th Division had engaged, among other formations, elements of the

1st Parachute, 26 Panzer and 29 Panzer Grenadier Divisions. These divisions were among the very best in the *Wehrmacht*, let alone in the Italian theatre.

⁹ Mitchum, Samuel C., *Hitler's Legions: The German Army Order of Battle, World War II*, (New York: Dorset Press, 1985), pp.327-328.

¹⁰ On 31 December 1944, the 16th SS Division reported a strength of 14,223 personnel. The Division possessed an assault gun battalion of 45 *sturmgeschuetz* as well as an anti-tank battalion with an additional 27 self-propelled anti-tank guns. Bender, Roger J., and Taylor, Hugh F., *Uniforms, Organization and History of the Waffen SS*, Vol. III (San Jose, CA: Bender Publishing, 1975), p. 120. Jentz, Thomas L., *Panzer truppen*, Vol. II, (Atglen, PA: Schiffer Military History, 1996), p. 172.

¹¹ 1 Canadian Corps Intelligence Summary No. 195, 30 December, 1944.

¹² The 5th Armoured Brigade was at only half strength. The Brigade's third armoured regiment, the Lord Strathcona's Horse, was then supporting 12 Brigade. The Brigade had, as well, lost its motor infantry battalion, The Westminster Regiment, when the Division had established 12 Brigade in July 1944. In Italy, Commonwealth armoured divisions had an extra infantry brigade. The Canadian Corps had formed this brigade out of its own resources, transforming a light anti-aircraft and a reconnaissance regiment into infantry and transferring The Westminster Regiment from the 5th to the 12th Brigade. After the hard autumn battles, each of the 12th Brigade's battalions manned only three rifle companies. This was the normal configuration for The Westminsters but a shortage of reinforcements had forced the other two battalions to temporarily reduce from four to three sub-units. It was probably for this reason that 11 Brigade was given the "break-in" task during Operation SYRIA.

¹³ 5 Brigade Operations Order No. 5, 1 January 1945; 11 Brigade Operations Order no.12, 31 December 1944, 9 Brigade Operations Instruction No. 19, 1 January 1945.

¹⁴ 11 Brigade Operations Order No. 12.

¹⁵ War Diary, 8th New Brunswick Hussars, 2 January 1945.

¹⁶ War Diary, The Irish Regiment and War Diary, The Perth Regiment, 2 January 1945.

¹⁷ The 11th Brigade reported taking 73 prisoners from the 3rd Battalion, 721 Jaeger Regiment; this from an initial strength of no more than 250 personnel. "5th Canadian Armoured Division Intelligence Summary No. 107", 8 January 1945.

¹⁸ War Diary, The Cape Breton Highlanders, 2 January 1945.

¹⁹ The 114th *Aufklarungs* Battalion was a comparatively potent mixture of light armour and infantry, similar to a motorized infantry battalion. Davies, W.J.K., *German Army Handbook*, (New York: ARCO Publishing, 1977), p. 40.

²⁰ War Diary, The Cape Breton Highlanders, 3 January 1945; The British Columbia Dragoons, "Report on Operations, 2 January to 5 January 1945".

²¹ War Diary, The 5th Armoured Brigade, 3 January 1945. It is worth noting that the 5th Canadian Armoured Division had developed a polished set of tactical groupings for either an assault ("break-in") or for subsequent exploitation. In the assault, attacking infantry battalions routinely received a tank squadron (usually from the 8th Hussars). For exploitation, battle groups consisted of a tank regiment and an infantry battalion. Cessford, Michael, *Warriors for the Working Day*, (Unpublished MA Thesis, University of New Brunswick, 1989), pp. 254-258.

²² War Diary, The British Columbia Dragoons, 3 January 1945.

²³ War Diary, The 5th Armoured Brigade, 3 January 1945.

²⁴ *Sturmbannfuhrer Maier* was the commander of the 36th SS *Panzer-Grenadier* Regiment.

²⁵ The Irish Company alone claimed 65 prisoners while killing another 30 enemy for no loss. War Diary, Irish Regiment of Canada, 4 January 1945.

²⁶ War Diary, The 5th Canadian Armoured Division, 4 January 1945. Hoffmeister, one of the most experienced Canadian commanders of the war, stated that he had never seen such concentrated slaughter as he saw on this battlefield. Interview, 26 May 1986.

²⁷ War Diary, The Westminster Regiment, 4 January 1945.

²⁸ War Diary, 5th Canadian Armoured Division, 6 January 1945.

²⁹ This casualty figure included no less than 310 enemy dead and 620 prisoners. "5th Canadian Armoured Division Intelligence Summary No. 107", 8 January 1945; Nicholson, p. 651; Canadian Army Historical Report No. 31, "Operations of 1 Canadian Corps, 28 Oct 44 to 27 Feb 45", p. 145.

³⁰ This loss was not insignificant. On 15 March 1945, there were only 22 operational Panthers left in Italy - this after the German forces had enjoyed a period of relative tranquility. Jentz, p. 248.

³¹ Alexander, p. 20.

³² Ibid.



The Command and Staff System in the Information Age: Is the Continental Staff System Dead?

Lieutenant-Colonel Jacques Hamel, CD

Introduction

Since the nineteenth century the Canadian army has changed its command and staff system to remain operationally successful. Until the late 1970's the primary command and staff system was the British staff system which provided three primary staff divisions (known as "G", "Q" and "A"). In the early 1980's the Canadian army adopted a modified version of the continental staff system, however this was no more than a renaming of old staff positions without considering the implications of the underlying philosophy of the continental staff system. This change was driven by the need to maintain lateral and higher coordination with our NATO allies, rather than by a rational examination of our staff system. With the changes in information technology and the resulting "information overload", the validity of the continental staff system has come into question. In this article I will set the scene for a debate that we must have if we are to remain operationally successful.

Command

For many years we have debated whether we are a command led or a staff driven army. This division has led to many misunderstandings between commanders and staffs at various levels and resulted in a fragmentation of our command philosophy. In the recently published Command Doctrine manual this issue has been put to rest. We have agreed that the command led philosophy will have primacy. We have also determined that our command philosophy would be based on a mission command approach. This has resulted in a redefinition of command as a human process where the leadership, decision-making and control necessary to conduct operations are brought together. It is also agreed that the commander centric process is driven by the commander's critical information requirements. Since commanders cannot conduct these activities without assistance, they require some form of command support. Command support, therefore, encompass the necessary communications, staff, tools, processes and information management to enable the commander to be successful.

Successful commanders must be able to deal with situations by projecting themselves into the three domains of time, space and information. The time domain includes current, next and future dimensions. The space domain has deep, close and rear dimensions, similar to the x, y and z axes on a graph. The information domain has a multitude of dimensions. A commander must be able to analyze issues by understanding the situation in all three domains. In the continental staff system the command support process is fragmented around the many information domains (resulting in the staff branches G1 to G6). In recent times we have seen a proliferation of staff divisions to cater to expanding information dimensions relevant to operations. This is seen by the recent addition of the G5 and G6 Branches to the traditional tactical staff framework and the creation by the American and British joint communities of an unweidly J1 to J9 staff structure.

Area of Operations

The area of operations in which commanders will conduct operations is expanding rapidly (Figure 1). This

expansion is compounding the decision-making problem of a commander in all three domains. It is however in the information domains that the expansion is the most remarkable. Since the expansion of the information domain is exponential, we must ask ourselves if the current staff structure is archaic and whether it is time for commanders to redefine the method by which command support is provided by the staffs?

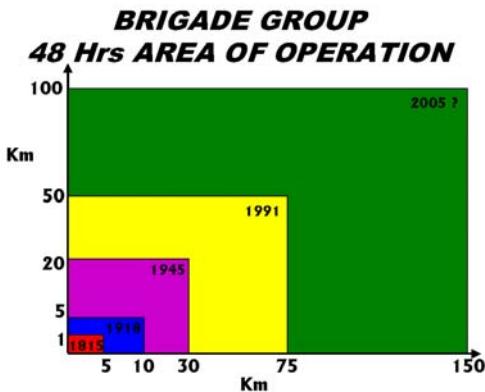


Figure 1: Area of Operations

How does one go about redesigning the staff? First, we must determine what its basic functions are. Some describe these using the continental staff system. This is not useful if we are attempting to present a new model independent of the three domains that a commander must master as shown in Figure 2. The primary functions of the staff can be reduced to managing information, planning and control. This redefinition of staff functions enables us to look at alternative to current command support structure. As stated earlier, the commander may require support in one or many facets of command. Our aim must remain to serve these needs in the most efficient fashion. In redesigning our staff support we must remember that the commander's critical information requirements are central to the command support system.



Figure 2: Staff Support

An alternative to present the commander's critical information requirements is at Figure 3.

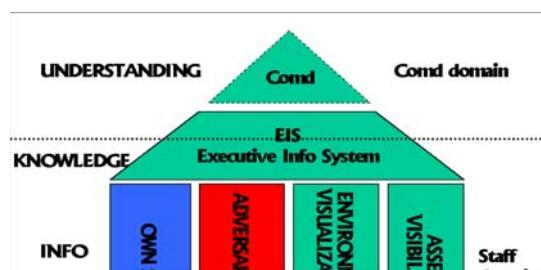


Figure 3: Hierarchy of Knowledge

It is based on the hierarchy of knowledge, which sees data as its lowest form and understanding as the most critical to the commander. This understanding has also been called "coup d'oeil" in the Napoleonic sense and "battlefield visualization" in modern American jargon. It is actually describing an art that enables a commander to understand the current situation and visualize in his or her own mind the future, seeing through the fog of war. This vision can often be very obscured, however for some commanders this vision will normally be clear and easily articulated to subordinate commanders and staffs. Historical examples of "coup d'oeil" abound.

To achieve understanding the commander must articulate his information requirements into four distinct areas. These can be described as friendly situation awareness, adversary situation awareness, environmental visualization and asset visibility. Own situation awareness answers the question where am I? Where are my buddies? Adversary situation awareness deals with similar question concerning the enemy or belligerents. Environment visualization deals with the need to understand all the facets of the operational environment from terrain to national culture. Asset visibility deals with the ability to retain knowledge of all resources to conduct operations. If this data is presented to a commander in raw form the result would be information overload. A better system is to create an executive information system to present the answers found to information requirements. We are not necessarily talking about a computer. The best executive information system remains the commander's personal staff, battle map and status boards. Our challenge is to modify this system to function into the information age.

An Alternative Approach

In studying what industry is doing and by comparing notes with our allies an alternative to the status quo can be proposed. It is not suggested that this is the only solution; however debate must start somewhere, otherwise we will end up giving the cavalry an electric horse while we attempt to automate staff support elements. We can ill afford misunderstanding the evolving operational environment since the result could be operational failure. It is my belief that the changes we are witnessing now are similar to the developments in firepower in the late nineteenth century. These were misunderstood before the First World War and lead to the massacres on the Somme and at Verdun. A second development was the results of mechanization, which led to the fall of France in 1940. Mechanization was not seriously debated in our army aside from the notable exchange of papers between Lieutenant Colonel E.L.M. Burns and Major G.G. Simonds in the interwar "Canadian Defence Quarterly".

The alternative approach presented here is based on using the time and/or space domains as the discriminator for command support instead of the information domain (Figure 4). This could see a rear command post responsible for rear operation including the sustainment of next and future operations and the planning for the next deep operations.



Figure 4: Tactical Operations

The main command post would be responsible to execute deep operations while planning close operations. A tactical command post would be responsible for close operations. Please note this latter command post does not denote the commander's "tac". This division of responsibility ensures that the amount of information processed at the command post is more manageable. As the only person with a total view of the situation, the commander would have to move his or her personal main effort to ensure that the critical questions are asked and decisions are made.

Another effect of the expansion of the area of operations is the compression of time. This compression could necessitate the introduction of collaborative planning. Currently, planning is seen as the purview of the commander's reconnaissance group assisted by one or two staff principals. In the future we could see the expansion of planning from this small group to a collaborative effort including commanders and staffs upward, downward, and laterally. The reasons for maintaining the current practice are quickly being overtaken by the high-speed information highway.

What would be the effect of retaining the current system despite environmental changes? I would suggest that we could only be able to focus on current or close operations at the cost of the deep, future and rear battles as this will be all we can do unless we change our command support process (Figure 5). We should ask ourselves whether our strategic and operational levels of command have already been paralysed as a result of this phenomenon. Do we have to leave the tactical level commander to a similar fate by doing nothing?

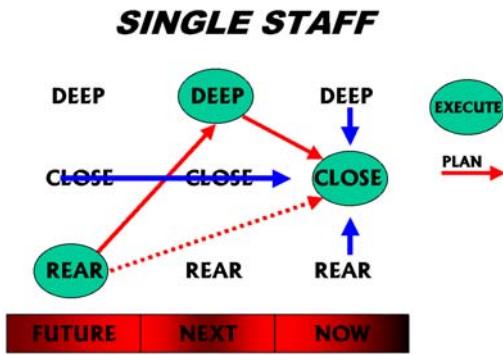


Figure 5: Single Staff

A Challenge

I do not believe I have presented the whole or even the best answer to our command support needs. It is however time for all of us to roll up our sleeves and work to a solution to ensure our army is organized to be operationally successful into the future. This effort will require the intellectual power of the entire army and not just doctrine, requirements and concepts staffs. I challenge all of you to join the debate. I look forward to reading or discussing your views on this and many other subjects.

Lieutenant-Colonel Jacques Hamel has a BEng in Engineering and Physics, from The Royal Military College of Canada. He has served with 5^e Régiment du Génie de combat, 10^e Escadron du Génie de campagne, as a Project Director for several capital procurement projects, J3 Engineer Logistics on the Canadian Forces Joint Staff, G3 International Plans at Land Force Command Headquarters, and as the Canadian Contingent Engineer in Cyprus. Lieutenant Colonel Hamel attended ACSC 25 Division 1 at Shrivenham and ACSC 30 at Camberley. Lieutenant-Colonel Hamel is a graduate of the USMC Engineer School at Camp Lejeune, the German Army Engineer School in Munich, and is a Professional Engineer in l'Ordre des Ingénieurs du Québec. Lieutenant Colonel Hamel was posted to the Directorate of Army Doctrine in 1997 and was appointed as the Acting Director the same year.

[\[Français\]](#)



The Vanishing Infantryman

By "One of Them" (With notes from the Editor)

Reprinted from the "Canadian Army Journal", 1953

It is 1963. The scene is Petawawa, or Calgary or Valcartier where the Royal Canadian Underground Light Infantry are drawn up on their parade ground to await the inspection of their Colonel-in-Chief (CC) who is visiting them for the first time in twenty years. The parade ground has grown dilapidated through lack of use and there are many potholes in its surface while flowers and weeds can be seen growing through the cracks in it. The potholes make the going a little bit tricky for the "old boy" and as they approach the right flank, the CO is speaking.

CO: "I must apologize for the condition of the parade ground sir, but an infantry battalion is such a highly specialized unit now that we don't get much time for drill anymore."

CC: "Yes, I daresay, my boy. In my day it was just a simple matter of grabbing the old bundook (Hindu term for firearm) and up and at 'em. But surely even today somebody's got to dig the b----s out, don't they?"

CO: "Aaaaaah....well yes I guess so, sir, though we don't have anyone who does that anymore. Now here is Battalion HQ. As you can see it is make up of chaps from various specialist corps since most of their work is of a technical nature. All the clerks are members of the RCASC (Royal Canadian Army Service Corps, which supplied clerks to most of the army prior to unification)-rank structure you know, even the Adjutant is in the newly formed Staff Corps. The RSM is about to be transferred to either Provost or the Service Corps in the near future. You see discipline is now handled almost exclusively by the Provost and since his ammunition duties in the field are merely a continuation of the RCASC supply system, the two corps are deciding who will get the vacancy to fill."

CC: "RSM in the Provost or RCASC? Never heard anything like it before in my life, especially for an infantry battalion. Who will run the other WOs and NCOs, particularly the CSMs? Fantastic!"

CO: "Oh the CSMs will go to the same corps as the RSM, sir, and so will the Sergeants. The RQMS and the complete Q staff (Quartermaster staff) are in Ordnance now (The Royal Canadian Ordnance Corps, which was responsible for supply matters). You see, accounting methods became much too complex for the ordinary infantryman. As for the other NCOs..."

CC: "Remarkable, my boy. Can't get over it. Suppose it's all very necessary these days though. What about people like drivers and signallers? That always used to be a popular job in my time."

CO: "Here is HQ Company and as you can see, the Signal Platoon is all in the Royal Canadian Corps of Signals. At one time it used to be an excellent training ground for officers and NCOs of the battalion. Today it's all very difficult and the Signals have taken over the complete platoon in order to ensure proper efficiency and standardization....oooops! I am sorry sir. That was a very deep hole, wasn't it?"

CC: "Quite all right, me dear fellow. Now what about these drivers?"

CO: "I guess our infantry drivers were never very highly thought of, sir, though we liked them. In any case, all transport is in the hands of the Service Corps, the complete MT (Motor transportation) section including

the Transport Officer. In fact, if you observe the various flashes you will note that there are no men from the regiment in this company anymore."

CC: "Remarkable, remarkable I say. In the old days it was often the custom to post good infantrymen to HQ Company to give them a bit of a rest from life in a slit trench. Used to get some pretty ropey cooks and drivers. I suppose, but it served its purpose well. When I was a platoon commander in the old battalion and got my promotion to Captain, I was made QM. It gave me a rest for a while and the experience served me in good stead when I commanded a battalion and brigade. I knew what was involved in the old Q racket - helped administration to no end. Intelligence Officer was another grand job. What will happen to it now?"

CO: "The task of collecting, collating and disseminating information is vastly complex and quite beyond the mental capacity of an ordinary infantry officer - so we are told. The IO and his section are members of the Intelligence Corps now. Why, a simple infantry officer has a full-time job keeping track of just one moth-eaten chinagraph pencil without having to keep all the colours. As for the QM, as I mentioned before, sir, he is in Ordnance now..."

CC: "Of course, good old Support Company - always used to be rebels in my day. Had a devil of a time getting them to dress alike and in the field they made their own regulations. A great company it was and the riflemen used to like being posted to one of the specialist platoons for a change. Pioneers wore beards then. Looked magnificent, they did".

CO: "They wore beards as recently as Korea (The Korean Conflict, 1950 - 53), sir, but we are told that the Sappers are going to take over all Pioneer Platoons so I imagine that the custom will die out. It's pretty technical work, you know."

CC: "Oh I've no doubt, but it seems a shame to see all the specialist jobs taken over...all too technical, eh? Well what about the Mortars, anyone can drop a bomb down the old spout, can't they?"

CO: "Actually, sir, all high trajectory fire is in the hands of the Gunners today. They started to operate 4.2-inch mortars several years ago and then the business of tying up the fire plan became so difficult that the whole baby was handed over to the Artillery. The mortar platoon wear Gunner flashes now and the CO has only to deal with one person on matters of fire support - very efficient."

CC: "My goodness, man, this is incredible. (Mutters to himself). There must be an honest to goodness infanteer somewhere here. Somebody's got to dig the b---s out. Just a simple ordinary infantryman!"

CO: "Sir, war today is a very specialized matter. Why even the Anti-Tank Platoon is Armoured Corps and in view of the tracked vehicles in the Carrier Platoon, I am told they will probably take that over as well. Efficiency is the big..."

CC: "Ah yes, the alter of efficiency has seen a good many sacrifices lately. Things have changed. Gracious man, everyone is a technical wallah (an Anglo-Indian term meaning someone who is employed about or concerned with something). Somewhere there must be an ordinary infantryman in this army. Can't imagine what we're coming to at all. I..."

CO: "But, sir, today it's really a most scientific problem. In fact it's nothing less than pure pushbutton warfare..."

CC: "Push-button warfare eh? Ahhh!" (Spies a lone soldier standing on the left of the battalion wearing the traditional regimental flash RCULI). "At last a man who actually belongs to the regiment. An undoubted infanteer. Spearhead of the attack and pride of the armies! Well, my boy, what is your job in this business of so-called push-button warfare? Pushing the old bayonet, eh?"

Soldier: "No, sir, I'm the one who pushes the button."

CO: "Oooops, I am so sorry, sir, another very deep one, wasn't it?"

[\[Français\]](#)



The Battle Group in the Advance and Maneuver Warfare

Colonel Walter Semianiw, CD

War should be undertaken only with forces proportioned to the obstacles to be overcome.

Napoleon

Introduction

As the Canadian Army moves to fully embrace the warfighting doctrine known as maneuver warfare, it is important to examine our battle drills or techniques to ensure that they support this new way of war. To this end, the techniques of the battle group in the advance were examined to determine if they support a 'maneuverist approach' to warfighting. It was concluded that there is an alternate approach to the organization and structure of the battle group in the advance. This approach provides flexibility in the advance and therefore better supports the warfighting doctrine of maneuver warfare and its decentralized philosophy of command and control. The aim of this paper is to explore an alternate approach to the organization and structure of a battle group in the advance and exploitation.

The Philosophy

The successful application of maneuver warfare will demand that commanders at all levels of command have maximum flexibility in the conduct of war. This is based on a belief by maneuverists that war will be 'chaos' and prepared plans will not stand the test of first contact. As a consequence, at the heart of the theory of maneuver warfare lies the concept of 'reconnaissance pull' rather than a 'centralized push' that has been a characteristic of Canadian warfighting. Accordingly, reconnaissance forces are deployed in a broad front to locate surfaces and more importantly gaps in an enemy's defences. Once gaps have been located, reconnaissance forces pull main bodies through gaps in order to continue the advance and to exploit the tactical situation. If only surfaces are located, then a 'bataille de rupture' may be required to create opportunities for maneuver.

As the battle group continues with its advance or exploitation, it will begin to encounter enemy forces. However, it can be expected that the size and composition of the contacts that are encountered will not always be a 'platoon dug-in' as has been practised and rehearsed in numerous command post and field exercises by a generation of Canadian officers. Rather, the number and type of threats that may be faced by the battle group could range from the single soldier to another battle group. This is particularly true as the battle group moves deeper into an enemy's rear area by which time, enemy cohesiveness could be broken and rear area units and remnants of units will be encountered.

Between these two extremes are a myriad of potential threats that a battle group could be expected to destroy or neutralize in order to maintain the advance and exploitation and its freedom of maneuver. If one agrees with this assumption, then the logical extension to this argument is that the allocation of a combat team to meet threats smaller than a platoon may be more than is required to achieve the mission. Further, the uncertainty of the type and size of the enemy that will be encountered as mobile forces strike deep into an

enemy's rear area, will demand flexibility in structure and organization in order to maintain a high tempo of operations.

Accordingly, maximum flexibility can only be achieved if the battle group commander organizes his forces when a threat is encountered and not at the commencement of offensive operations. Consequently, the organization and formation of combat teams within a battle group, prior to an advance, runs counter to the approach and the concepts of maneuver warfare which are focused on 'reconnaissance pull' and exploiting weakness and vulnerabilities when they are encountered. Rather, an approach, that provides maximum flexibility in organization, while placing firepower forward with a view to maintaining a high operational tempo, is preferred.

Organization of Forces

The battle group should be organized with layered reconnaissance forces leading across a broad front - effective reconnaissance is the key to successful maneuver warfare. Further, it should be expected that reconnaissance forces will be destroyed in great numbers as the enemy attempts to 'strip away' our reconnaissance forces. Reconnaissance forces therefore must be layered and have a redundancy capability. Moreover, they must be prepared to fight in order to seek-out gaps which will be shielded by a defender. This is a change from the past.

Forward Observation Officers (FOOs) should be located with reconnaissance forces to ensure that indirect fire is brought to bear on the enemy as quickly as possible. This is achieved when FOOs are located as far forward as possible in the advance moving to the best position of observation, rather than being tied to combat teams that are travelling as part of the advance guard or main body. However, this will require more FOOs than are normally allocated to a battle group. The FOOs will be controlled by the battery commander who will be travelling with the battle group commander as part of the tactical command post.

Following the reconnaissance forces will be the armoured forces. They will provide firepower and protection to the battle group. The squadrons are followed by the mechanized infantry companies moving in column from bound to bound under cover, in order to provide maximum dispersion and to ensure that they are not committed prior to the battle group commander having ascertained the location and nature of the threat. As well, engineers should move from bound to bound to provide protection. When committed, the inherent mobility of the mechanized infantry companies and the engineers will ensure that they can move quickly to designated marry-up points, decisive points or the 'schwerpunkt' in order to achieve the task at hand. Anti-armour forces, in the form of Tow-under-Armour, will be travelling either on one or both flanks with a view to providing security to the battle group.

Finally, commanders will need to travel well forward, perhaps with the lead infantry company or behind the lead squadrons. By being well forward in the advance and exploitation, commanders will be able to ensure that they can exploit tactical situations when they are encountered and can assist to reinforce success. Commanders should move to the 'schwerpunkt' once its location has been determined. However, unlike the approach that was taken at times by Rommel, commanders must allow subordinates to accomplish tasks and not to take command and control of sub-units. Clearly, the role of the battle group commander is to assist subordinates. This is done through the allocation of additional resources and direction if needed.

Battle Drill/Technique

As the battle group approaches the enemy, reconnaissance forces will picket and expand on the enemy contact as the FOOs and tanks bring fire to bear on the enemy as quickly as possible. Maximum firepower brought to bear on the enemy as quickly as possible will ensure that the battle group maintains its freedom of

action. Reconnaissance forces will continue to find gaps in the enemy's defences in order to 'pull' the battle group through these gaps in an approach that is reminiscent of German infiltration tactics developed on the Eastern Front during the First World War and transplanted to the Western Front in 1918. In this respect, sub-units must be prepared to 'break-down' into smaller groups in order to infiltrate gaps. Anti-armour forces will be deployed to the most vulnerable flanks to shield moving forces.

Once the contact has been identified and developed, the battle group commander will move forward to conduct an estimate to determine if the enemy is an impediment to the advance or exploitation. If there is a need to clear the enemy, resources will be allocated with a view to maintaining the tempo of the advance. In some cases, this may be a platoon and a troop of tanks, or only an infantry platoon. Clearly, flexibility in the advance also implies a flexibility in the mind of commanders to find unique solutions to problems and not to dogmatically apply resources in accordance with textbook solutions. When doctrine becomes too restrictive, it becomes dogmatic and a hinderance.

Commanders will issue orders as the balance of the battle group continues with the advance. Once subordinates have achieved their task at hand, in this case an infantry company, it will move in behind the last company in the advance.

As the battle group continues with the advance and exploitation, it could encounter more contacts. Consequently, the battle drill that is prescribed above is repeated. Accordingly, the battle group commander could be fighting two or more battles simultaneously. However, with this approach, the battle group commander will have the flexibility to maintain the advance and a fluidity of operations, rather than stopping to wait for each contact. By maintaining momentum, commanders will ensure that they remain in the enemy's decision making cycle. Moreover, using this approach, all available firepower is brought to bear on the enemy as quickly as possible to ensure that the battle group retains its ability to remain mobile. In the final analysis, mobility can only be a determinant to success as long as forces remain on the move and resources are allocated to meet assigned tasks. As noted by Guderian in Panzer Leader, 'only movement brings victory.'

Conclusion

In the final analysis, the doctrine and drills of the Canadian army must be examined to ensure that they provide the flexibility for commanders to work within the framework of the theory of maneuver warfare. To do otherwise would return our techniques to an 'attritionist approach' to warfare. However, flexibility in organization must be accompanied by a mental flexibility of commanders at all levels of command as they allocate resources based on a task and not based on dogmatic solutions that prevent squadrons or companies from being used in part. Granted, armoured units are best used in a 'massed approach,' as Guderian noted in his famous maxim 'Klotzen nicht Kleckern.' However, such an approach should not prevent a flexibility in mind. As observed by the military strategist Hans Delbrück, "greatness lies in the freedom of the intellect and spirit at moments of pressure and crisis, and in the willingness to take risks".

Colonel Walter Semaniw holds a BA from the University of Western Ontario. His service includes several tours with Princess Patricia's Canadian Light Infantry, including command of the 1st Battalion . His interests include the development and evolution of mechanized warfare and the "Revolution in Military Affairs". Colonel Semaniw is currently completing a Masters of War Studies degree at The Royal Military College of Canada in Kingston.

Notes

1. Justin Wintle, The Dictionary of War Quotations (New York: The Free Press, 1989), p. 447.

² Karl von Clausewitz, On War translated by Matthijs Jolles (New York: The Modern Library, 1943). As Clausewitz noted, war is chaos. Everything in war is simple, but the most simplest thing is difficult. These difficulties accumulate and produce a "friction" from which no one can form a correct idea.

³ The term "bataille de rupture" is used to denote a breakthrough attack rather than infiltration. See Gunther E. Rothenburg, The Art of Warfare in the Age of Napoleon (Bloomington: Indiana University Press, 1980).

⁴ For a detailed explanation of the philosophy of gaps and surfaces, the reader is directed to William S. Lind The Maneuver Warfare Handbook. (Boulder and London: Westview Press, 1985).

⁵ For an account of the varied and differing types of threats that will be encountered in rear areas, see Florian K. Rothburst Guderian's XIXth Panzer Corps and the Battle for France (New York: Praeger, 1990) and Alister Horne To Lose a Battle (Toronto: Little, Brown and Company, 1969).

⁶ Ibid.

⁷ Ibid. Also William L. Shirer The Collapse of the Third Republic: An Inquiry into the Fall of France in 1940 (New York: Simon and Shuster, 1969).

⁸ Ibid. Also Anthony H. Cordesman The Lessons of Modern War: The Arab-Israeli Conflicts 1973 - 1989 (Boulder: Westview Press, 1990).

⁹ Rothburst Guderian's XIXth Panzer Corps and the Battle for France and A. Goutard The Battle for France, 1940 translated by A.R.P. Burgess (London: Frederick Muller, 1985).

¹⁰ Ibid. Also S.J. Lewis Forgotten Legions: German Infantry Policy 1914 - 1918 (New York: Praeger, 1985).

¹¹ See Desmond Young Rommel (London, 1950).

¹² See Bruce I. Gundmunson Stormtrooper Tactics: Innovation in the German Army, 1914 - 1918 (New York: Praeger, 1989) and John A. English On Infantry (Westport: Praeger, 1984).

¹³ See Goutard The Battle of France, 1914 page 20. In his work, Colonel Goutard points to the fact that the German Army, exploiting to the fullest mobility, was always "one step ahead" of the French forces.

¹⁴ See Heinz Guderian Panzer Leader Translated by Constantine Fitzgibbon (London: Michel Joseph Limited, 1956), pp 40 - 43.

¹⁵ Guderian Panzer Leader page 105. A literal translation is "smash not tap". Guderian's maxim was used in a massed approach vice a piecemeal approach.

¹⁶ See Hans Dulbruck History of the Art of War (Lincoln: University of Nebraska Press, 1990).



The Stand-Up Table:

Commentary, Opinion and Rebuttal

Tigers Can't Live in a Box

By Captain Mike O'Leary

(Reproduced from an Editorial in "The Frontenac Times,"
the unofficial newspaper of Land Force Staff Course 9801)

"Military organizations make for military incompetence in two ways — directly, by forcing members to act in a fashion that is not always conducive to military success, and indirectly, by attracting, selecting and promoting a minority of people with particular defects of intellect and personality".

We've spent a lot of time talking about **the box**. But the concept of 'the box' is more complex than it first appears. And there is just not one box. The 'boxes' are multi-layered and concentric, *they* are multi-dimensional. The multi-layering and concentricity of the boxes is like overlapping and interlocking arcs of fire — some people cannot perceive it at all, others can visualize it only while it is being explained, and a few cannot understand why others cannot see it. And the box concept supports an ongoing narrowing of minds and destruction of individuality.

To perceive the multi-layering aspect of these behavioural boxes involves the acknowledgement that the performance of officers is measured in varying degrees on different strata. To be assessed as 'competent' and suitable for advancement, you must have remained within each box as perceived by your superior. These boxes include tactics, technical knowledge, appearance, social behaviour (of yourself and your spouse), and tact (particularly towards your superior and his/her superior, *ad infinitum*). This list should not be considered exclusive.

The importance of recognizing the multi-layered aspect of the boxes is that if you are outside one box, you might as well be outside all of them. Competence in one area does not necessarily allow digression in another.

Concentricity embodies the concept that each level of supervision establishes the virtual bounds of the box that encompasses acceptable performance by their subordinates. This boundary then defines 'the box' for immediate subordinates and each subordinate level of command is then tacitly expected to establish its box within that, and so *ad nauseam*. And it's not sufficient then to just stay within your own superior's box, because if he/she is outside their box, you're all outside the box. At the extreme, each commander defines a box safely within that of his superior, resulting in increasingly restricted boundaries for those at the bottom of the pyramid.

Hierarchical competence does not imply military competence. Commanders cannot allow their subordinates out of the box because their own superiors then see them as being out of the box. The conformist superior "will probably rate his subordinates in terms of institutional values: he will see competence as the behavior that supports the rules, rituals and forms of the status quo. Promptness, neatness, courtesy to superiors,

internal paperwork, will be highly regarded ... internal consistency is valued more highly than efficient service."

The shrinking boxes you find as you travel down branches of the command structure allow a glimpse into why behavioural norms (social, tactical, etc.) can be so different in similar organizations at the end of different branches. And that's why we have three variations of infantry doctrine.

Here at the Canadian Land Force Command and Staff College we've focussed on the tactical box – are we or are we not expected to always stay within the alleged acceptable norms for tactics. Attritionist warfare is so well suited to the box: two up, one back, bags of smoke; no surprises for your superiors and no annoying use of initiative that they might have to explain to their superior.

Peacetime soldiering breeds boxes. Compare wartime armies with those maintained during peacetime. The degree of conformity pursued in peacetime breeds a self-destructive petrifaction of thought. And it's deeper than merely preparing for the last war. It's a systematic purging and sweeping aside of non-conformist attitudes that threaten the status quo. Four hundred years ago it saw the relegation of artillerists to the status of dirty technophiles whom, though necessary and tolerated were certainly not on par with the soldiers of the infantry and cavalry. A superb conformity of mind and disregard of military skill saw a resplendent and parade ready British Army nearly defeat itself logistically in the Crimea.

But the conformist military mind does not win wars. Wars are won by the application of unorthodoxy – the development of the tank, the restructuring of infantry to fight effectively in smaller and smaller tactical groupings, the invention of weapons, equipment and tactics that **do not** fall neatly into an infantry – cavalry – artillery categorization. Significantly, wars are won by soldiers who *can* get out of the box. But it is only during a crisis — the mobilization of wartime, the meeting of a novel threat—that the conformist hierarchy is willing to tolerate the recruiting, presence and contribution of the non-conformists.

We're talking a lot about getting out of the box these days, but how much of it is rhetoric supporting the 'flavour-of-the-month.' Commanders who have been bred and brought up in the milieu of 'the box' cannot readily cast aside its precepts – for they are the enemy of change by virtue of having succeeded by being conformists.

We need to encourage new T.E. Lawrences, S.L.A. Marshalls, and Richard Mienertzhagens – young officers pushing the limits, getting out of the box, being seen and heard. At the least, we need to create a professional atmosphere that permits them to speak out and be heard without punitive response. If we are committed to change, it is no longer tolerable that 'tactics be the purview of the senior officer present.' And once we break down that box, the others will fall in their turn.

Take the LAV-Coyote dilemma. How *are* we going to employ it tactically? This question cannot be answered by senior officers whose experience or knowledge is based on armoured recce in the last war or how it was done in Canadian Forces Europe with Lynx. The technological leap forward requires – demands – a renewed approach. It can only be answered by an unofficial, laterally communicating, consortium of infantry and armour junior officers (and perhaps even NCOs) with real and current experience on the vehicle – and the courage and freedom to experiment with its employment. These discussions must take place in open forum, not Corps journals, and submissions cannot be subject to editing by the existing hierarchy before they are open to consideration by the author's peers.

And we won't even start to talk about infantry employment of the LAV-ICV.

We haven't allowed our young officers to speak on controversial issues for many years.

It's time to open the box, to open all the boxes given their inter-dependencies. Because 'the box' contains not

the evils of the world, ‘it’ contains our future and our credibility as an Army.

Let’s ask ourselves again:

"Where **have** all the tigers gone?"

Captain Mike O’Leary has served with the 1st and 2nd Battalions of The Royal Canadian Regiment. He has also served with the Infantry School as the subject matter expert for mortars and at Land Force Atlantic Area Headquarters as the G3 Plans. A recent graduate of the Land Force Staff Course, Captain O’Leary is currently employed as the Range Control Officer at the Land Force Central Area Training Centre Meaford.

Notes

1. Norman F. Dixon On the Psychology of Military Incompetence, Futura Publications, 1976
 2. Laurence J. Peter & Raymond Hull, The Peter Principle, 1969
-

[\[Français\]](#)

Letters to the Editor



This section of The Army Doctrine and Training Bulletin will feature letters to the Editor. Letters should be no longer than 300 words and touch any subject.

As there are no letters for the first issue, please find below a few Excerpts from "The Young Officer's Guide to Knowledge" by *Senior Major*, Revised and Enlarged Version, 1915, for your enjoyment.

On Company Training

"This is the most important part of a soldier's training - in fact it is the foundation of all other Infantry Training and the basis of a sound army.

"The recent reorganization of an Infantry Battalion, set forth in last season's New Training Regulations, has rendered the "section" a less important part of the company. The company, however, can still be trained on the broad minded and comprehensive lines indicated in this chapter, the word "platoon" being substituted for "section" where necessary. The fact that the company now consists of 16 sections instead of four, will at once suggest to the really keen officer who wishes to get on with his profession, a method of still further enhancing his reputation by extending the circle of his august admirers"

The Quartermaster's stores

This is a mysterious and awesome place where clothing, boots and ammunition come from. How it all gets there is a mystery, but it is all done by odd bits of paper called "vouchers", "indents" and sometimes "requisitions". When a fresh lot of clothing or boots has arrived, a board of inquiry is appointed called a "Board of Survey", who give the clothing a kind of official regimental baptism, and write its name and quantity on the quartermaster's register.

On The Quartermaster

If you should be so unwise as to dispute any question with the Quartermaster, such as why Private Bink's boots are of a different pattern to Private Bunk's, the Quartermaster will convict you out of the sacred books of the law, the Clothing Regulations or the Equipment Regulations, which will probably say that "Boots, ammunition, hob-nailed, armour-plated, web-footed" are issued to men of the Special Reserve, whilst "Boots, ammunition, hob-nailed, armour-plated, spring-heeled" are issued to the Regulars. Adjectives are never placed in the right order in the Quartermaster's Stores...One fine summer's day becomes "Day, summer, fine, 1".

A Return

A Return is a document sent to a superior authority, and comprises lists of persons or things in your charge. This document, quite contrary to what you might suppose from its title, never returns to you, unless the

person to whom you have sent it thinks it requires attention. It is probably called a Return for this very reason, as it is the most unlikely name for it, and so cultivates a taste for the eccentric in the Service.

[\[Français\]](#)



Articles and Books of Interest

Armée d'aujourd'hui No. 229, avril 1998

"Dispositions de combat! Une compagnie au CEITO"

"L'arme du fantassin du futur"

-

Australian Defence Force Journal No. 129, March/April 1998

"The Influence of the Army Reserve in Facilitating Social Change Within the Australian Defence Force" by Lieutenant Colonel C.W. Orme, RAAC

"Harnessing the News Media During Conflict" by Wing Commander A.E. Dowse

British Army Review Number 117, December 1997

"How Close are We to the Demise of the Main Battle Tank?" by Major-General A.S.H. Irwin and Lieutenant Colonel D.C. Eccles

"A Different Kind of Peacekeeping: The Unarmed Peacekeepers" by Major A.G. Greenwood

Canadian Defence Quarterly Volume 27, Number 2, Winter 1997

"The Banning of the Anti-Personnel Landmine" by Major P.W. Fredenburg

"Is There a Future for the Canadian Light Infantry?", by Lieutenant-Colonel D.V. Pitfield

The Canadian Forces Journal

This new professional journal will commence publication in 1999.

Canadian Military History Volume 7, Number 1, Winter 1998

"Black, White and Grey: Wartime Arguments For and Against the Strategic Bomber Offensive"
by David Hall

"Analysis of 75mm Sherman Tank Casualties Suffered between 6 June and 10 July 1944",
Report No. 12 - No. 2 Operational Research Section

Infantry Journal Summer 1997, Number 32

"Some Thoughts on the LAV" by Major D.W. Thompson

International Peacekeeping Volume 4, Number 4, Winter 1997

"A New Approach to Complex Emergencies" by Jack Mackinlay and Randolph Kent

"The International Committee of the Red Cross and the Law of Armed Conflict Today" by Yves Sandoz

The Journal of Conflict Studies Fall 1997

"Ethnic Structure, Conflict Processes and the Potential for Violence and Accommodation in Canada", by D.E. Schmitt

"The Language of Peace and Conflict: Relevance Theory and the Anglo-Irish Agreement" by J. Wilson and J. Rose

"Islamic Revivalism and the Quest for Political Power" by Nasser Momayezi

Marine Corps Gazette April 1998

"Warfighters Fight, Humanitarians Assist - Time to Match the Right Force to Humanitarian Assistance" by Lieutenant-Colonel D.L. Walter

"I Want to be 'Ender'" An article on decision making by Captain B.B. McBreen

"Building Decisionmakers" by Captain A.L. Glasgow

"A Concept for Advanced Expeditionary Fire Support - The System After Next"

"Sea Based Logistics: A Concept Just Over the Horizon" by Major G.W. Stokes

Military Technology Volume XXI, Issue 12, 1997

"Defence Procurement in Norway"

"Towards 'All Conditions' Vision: Technological Answers to Operational Requirements" by Yves Demay

"Poland's New Defence Leaders" by Wojciech Luczak

Parameters: US Army War College Quarterly Volume XXVIII, Spring 1998

"Military Leadership in the 21st Century: Another Bridge too Far?" by Walter F. Ulmer, Jr

"No More Principles of War?" by Russell W. Glenn

"The Mind has no Firewall" by Timothy L. Thomas

US Naval Institute Proceedings Volume 124/1/1,139, January 1998

"Network-Centric Warfare: Its Origin and Future" by Vice Admiral K. Cebrowski and John J. Garstka

Books of Interest: A Listing of Recent Publications

Canadian Topics

Baker, Raymond F. *A Campaign of Amateurs: The Siege of Louisbourg 1745*. Ottawa: Canadian Government Publishing/Canadian Heritage Parks Canada, 1995

Bishop, Arthur. *Salute! Canada's Great Military Leaders from Brock to Dextraze*. Toronto: McGraw-Hill Ryerson Limited, 1997

"Citizen X". *Who Are the People of Canada Anyway? Waiting for the Next Referendum*. Toronto: Venture Press, 1997

English, John. *Lament for an Army: The Decline of Canadian Military Professionalism*. Concord, ON: Canadian Institute of International Affairs/Irwin Publishing, 1998

Fowler, Albert G. *Peacetime Padres: Protestant Military Chaplains, 1945 - 1990*. St Catherines, ON: Vanwell Publishing, 1996

Jockel, Joseph T. *The End of the Canada - U.S. Defence Relationship*. Kingston, ON: Centre for International Relations, Queen's University, 1996

Granatstein, Jack. *Who Killed Canadian History?* Toronto: Harper Collins, 1998

Greenhous, Brereton. *"C" Force to Hong Kong: A Canadian Catastrophe*. Toronto/Oxford: Dundurn Press, 1997

Montemaggi, Amedeo. *Linea Gotica - The Gothic Line: The Canadian Breaching at Tavullia, Key of the Italian Campaign*. Pesaro e Urbino: Comune di Tavullia, 1995

Lenarcic, David. *Anthony Knight Errant? Canada and the Crusade to Ban Anti-Personnel Land Mines*. Concord, ON: Irwin Publishing/Canadian Institute of International Affairs, 1998

Patterson, William J. *A Regiment Worthy of Its Hire: The Canadian Guards, 1953 - 1970*. The Canadian Guards Regimental Association, 1997

Rioux, Christain. *The British Garrison at Quebec, 1759 - 1871*. Ottawa: Canadian Government Publishing/Canadian Heritage Parks Canada, 1996

Schreiber, Shane B. *Shock Army of the British Empire: The Canadian Corps in the Last 100 Days of the Great War*. Westport, Connecticut: Praeger, 1997

Scislowski, Stanley. *Not All of Us Were Brave*. Toronto/Oxford: Dundurn Press, 1997

Smylie, Eric. *Buttons of the Canadian Militia, Army, Naval and Air Forces, 1900 - 1990*. St Catherines, ON: Vanwell Publishing, 1995

Politics and Strategic Issues

Brzezinski, Zbigniew K. *The Grand Chessboard: American Primacy and its Geostrategic Imperatives*. New York: BasicBooks, 1997

Buzan, Barry. *Security: A New Framework for Analysis*. Boulder, Colorado: Lynne Rienner Publishers, 1998

Pearton, Maurice. *Diplomacy, War and Technology since 1830*. Lawrence Kansas: University of Kansas, 1984

Mowlana, Hamid. *Global Information and World Communication: New Frontiers in International Relations*. London: Sage Publications, 1997

Doctrine and Theory

Fishel, John T. *Civil Military Operations in the New World*. Westport, Connecticut: Praeger, 1997

Keir, Elizabeth. *Imagining War: French and British Military Doctrine Between the Wars*. Princeton, N.J.: Princeton University Press, 1997

Naveh, Shimon. *In Pursuit of Military Excellence: The Evolution of Operational Theory*. London and Portland, Oregon: Frank Cass Publishers, 1997

Ethics

Cecil, Andrew R. *Moral Values: The Challenge of the Twenty-First Century*. Austin, Texas: University of Texas Press, 1996

Ethics: A Selected Bibliography. Carlisle Barracks, PA: US Army War College, 1997

Ignatieff, Michael. *The Warrior's Honor: Ethnic War and the Modern Conscience*. Toronto: Viking, 1998

Ancient to Early Modern Periods

Hildinger, Erik. *Warriors of the Steppe: A Military History of Central Asia, 500 BC to 1700 AD*. New York: Sarpedon, 1997

Lynn, John A. *Giant of the grand siècle: The French Army 1610 - 1715*. Cambridge: Cambridge University Press, 1997

Nineteenth Century Conflict

Etling, John Robert. *Amateurs to Arms! A Military History of the War of 1812*. New York: Da Capo Press, 1995

Lynn, John A. *The Bayonets of the Republic: Motivation and Tactics in the Army of Revolutionary France 1791 - 1794*. Boulder, Colorado: Westview Press, 1996

Neillands, Robin. *The Dervish Wars: Gordon and Kitchener in the Sudan, 1880 - 1898*. London: John Murray, 1996

Twentieth Century Conflict

Clancy, Tom. *Into the Storm: A Study in Command*. New York: G.P. Putnam's and Sons, 1997

Maris Evans, Martin. *The Battles of the Somme*. Toronto: Little, Brown and Company (Canada) Limited, 1996

Mitcham, Samuel W. *The Desert Fox in Normandy: Rommel's Defense of Fortress Europe*. Westport, Connecticut: Praeger, 1997

Pagonis, William G. *Moving Mountains: Lessons in Leadership and Logistics from the Gulf War*. Boston, Massachusetts: Harvard Business School, 1992

Reynolds, Michael. *Steel Inferno: I SS Panzer Corps in Normandy*. New York: Sarpedon, 1996

Van Dyke, Carl. *The Soviet Invasion of Finland, 1939 - 1940*. London: Frank Crass, 1997

Weapons and Equipment

Croddy, Eric. *Chemical and Biological Warfare: An Annotated Bibliography*. Landham, Maryland: Scarecrow Press, 1997

Gelbart, Marsh. *Anti-Tank Weapons*. London, Brassey's, 1996

Hogg, Ian. *Tank Killing: Anti-Tank Warfare by Men and Machines*. New York: Sarpedon, 1996

Quinn, Major J.T. *Marine Communications in DESERT SHIELD and DESERT STORM*. Washington: History and Museums Division, Headquarters US Marine Corps, 1996

Peacekeeping Issues

Pugh, Michael, Editor. *The UN, Peace and Force*. London/Portland, Oregon: Frank Crass, 1997

General

Duffy, Bernard K. *Douglas MacArthur: Warrior as Wordsmith*. Westport, Connecticut: Greenwood Press, 1997

Dupuy, Trevor Nevitt. *Attrition: Forecasting Battle Casualties and Equipment in Modern War*. Falls Church, VA: Nova Publications, 1995

Gaddis, John Lewis. *We Now Know: Rethinking the Cold War History*. Oxford: Oxford University Press, 1997

Smith, Dan. *The State of War and Peace Atlas*. London: Penguin Reference, 1997

Spahr, William J. *Stalin's Lieutenants: A Study of Command under Duress*. Novato, California: Presidio Press, 1997

Stiehm, Judith. *Hicks Its Our Military Too! Women and the US Military*. Philadelphia: Temple University Press, 1996

The Oxford Companion of Military Biography. New York: MacMillan, 1998

[\[Français\]](#)



On the Internet: A Listing of Canadian and International Sites of Interest

Canadian Sites

Canadian Forces Photographic Unit. A virtual warehouse of photographic material on the Canadian Forces.

www.dnd.ca/dcds/cfphoto/main.htm

The Canadian Army Home Page. An unofficial site produced by a reserve officer in Atlantic Canada. This site offers information on army history and heritage and a "chat" site on army issues. Excellent links to other Canadian and international sites.

www.cyberus.ca/~army/army/

The Canadian Great War Homepage. A new site offering detailed information on Canada's military in the First World War.

www.rootsweb.com/~ww1can/index.html

Australian Sites

The Australian Army Homepage. A site offering general information on the Australian Army.

www.adfa.oz.au/dod/army/index.html

British Sites

The British Army. An excellent site offering considerable detail on the organization, missions and current operations of the British Army.

www.army.mod.uk/army/index2.htm

Land Forces of the British Empire and Commonwealth. An outstanding site offering historical data on all the armies of the British Empire and Commonwealth. Includes campaign studies and links to many other valuable sites. Excellent material on 17th and 18th century campaigns in North America.

www.du.edu/~tomills/military/empire.htm

United States Sites

The Centre for Military History. A goldmine of information on American military history, including campaign studies.

www.army.mil/cmh-pg/default.htm

US Marine Corps Doctrine Manuals. Various USMC manuals can be downloaded from this site.

138.156.107.3/docdw/manuals.html

Multiple Launch Rocket System Home Page. Provides the history, current employment and future development of this outstanding indirect fire system. Includes image gallery with films of MLRS firings.

www.mlrs.pmo.redstone.army.mil

Parameters - US Army War College Quarterly. An electronic version of this outstanding publication.

Carlisle-www.army.mil/usawc/Parameters/

US Army Space Command (Forward). An excellent overview of the US Army's initiatives in space.

www.armyspace.com/

US Army Warrant Officer Career Centre. An overview of US Army Warrant Officer selection and training. Includes training material from the centre.

leav-www.army.mil/wocc/

Miscellaneous Sites

Joint Services Conference on Professional Ethics. A US-Canadian site offering papers and other information on military ethics.

www.usafa.af.mil/jscope/

Military Ethics. A Canadian site offering papers and information on conferences dealing with military ethics.

www.cfcsc.dnd.ca/bib/ethics.html

NATO/SFOR. An official site offering good general information on NATO operations in former Yugoslavia.

www.nato.int/ifor/general/facts.htm

[\[Français\]](#)